XR-CA600X/CA620X

SERVICE MANUAL

Ver 1.1 2001.05

US Model
Canadian Model
XR-CA600X
E Model
XR-CA620X

Photo: XR-CA600X

Model Name Using Similar Mechanism	XR-C5300X/C5600X
Tape Transport Mechanism Type	MG-25F-136

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS (US model only)

POWER OUTPUT AND TOTAL HARMONIC DISTORTION
23 watts per channel minimum continuous average power into 4 ohms, 4 channels driven from 20 Hz to 20 kHz with no more than 5% total harmonic distortion.

Cassette Player section

Tape track	4-track 2-channel stereo
Wow and flutter	0.08 % (WRMS)
Frequency response	30 – 18,000 Hz
Signal-to-noise ratio	

Cassette type	
TYPE II, IV	61 dB
TYPE I	58 dB

Tuner section

FM

Tuning range	
XR-CA600X:	87.5 – 107.9 MHz
XR-CA620X:	FM tuning interval: 50 kHz/200 kHz switchable 87.5 – 108.0 MHz (at 50 kHz step) 87.5 – 107.9 MHz (at 200 kHz step)
Aerial terminal	External aerial connector
Intermediate frequency	10.7 MHz/450 kHz
Usable sensitivity	8 dBf
Selectivity	75 dB at 400 kHz
Signal-to-noise ratio	66 dB (stereo), 72 dB (mono)
Harmonic distortion at 1 kHz	
	0.6 % (stereo), 0.3 % (mono)
Separation	35 dB at 1 kHz
Frequency response	30 – 15,000 Hz

AM (XR-CA600X)

Tuning range	530 – 1,710 kHz
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz/450 kHz
Sensitivity	30 µV

MW (XR-CA620X)

Tuning range	MW tuning interval: 9 kHz/10 kHz switchable 531 – 1,602 kHz (at 9 kHz step) 530 – 1,710 kHz (at 10 kHz step)

SW (XR-CA620X)

Tuning range	SW tuning interval: SW1: 2,940 – 7,735 kHz SW2: 9,500 – 18,135 kHz (except for 10,140 – 11,575 kHz)
Aerial terminal	External aerial connector
Intermediate frequency	10.7 MHz/450 kHz
Sensitivity	30 µV (at MW) 40 µV (at SW)

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	4 – 8 ohms
Maximum power output	50 W × 4 (at 4 ohms)

General

Outputs	Audio outputs Power aerial relay control lead Power amplifier control lead
Inputs	BUS control input connector BUS audio input connector Remote controller input connector Aerial input connector
Tone controls	Bass ±8 dB at 100 Hz Treble ±8 dB at 10 kHz
Loudness	100 Hz +8 dB 10 kHz +2 dB
Power requirements	12 V DC car battery (negative earth)
Dimensions	Approx. 178 × 50 × 176 mm (w/h/d)
Mounting dimensions	Approx. 182 × 53 × 161 mm (w/h/d)
Mass	Approx. 1.2 kg
Supplied accessories	Card remote commander (XR-CA620X only) (1) Parts for installation and connections (1 set) Front panel case (1)

Note
This unit cannot be connected to a digital preamplifier or an equalizer.

Design and specifications are subject to change without notice.

FM/AM CASSETTE CAR STEREO

9-870-248-12
2001E0500-1
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Sony Corporation
e Vehicle Company
Shinagawa Tec Service Manual Production Group

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Notes on chip component replacement

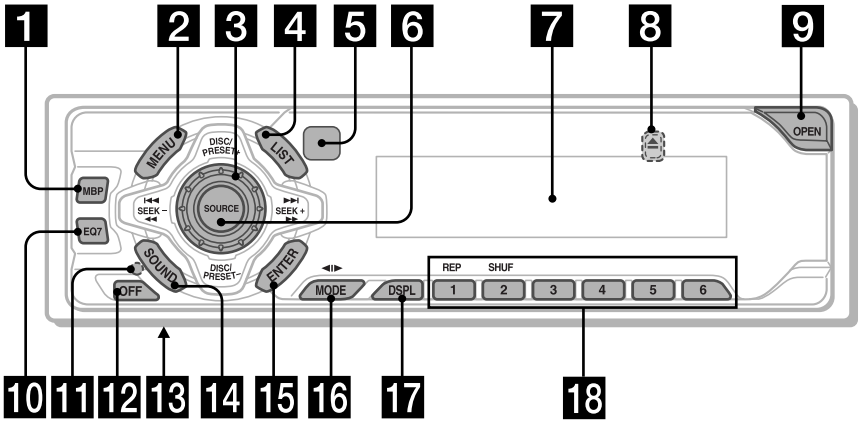
- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 ˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

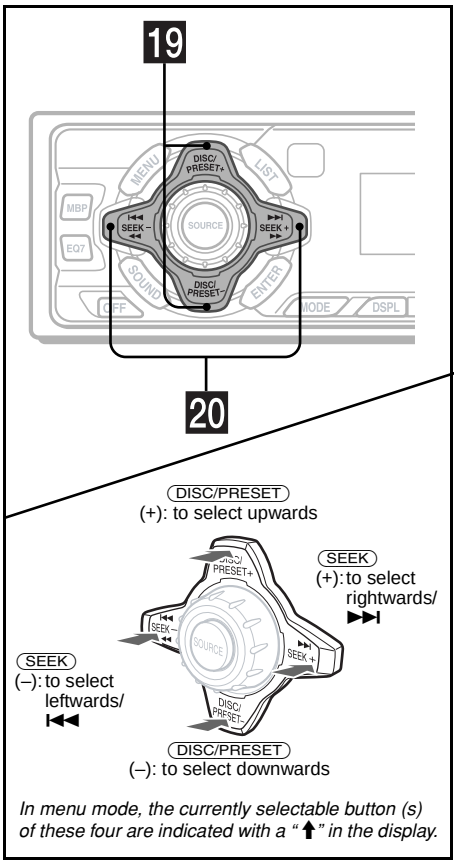
Location of controls

Refer to the pages listed for details.
TAPE: During tape playback RADIO: During radio reception MENU: During menu mode
CD/MD: During CD/MD playback (optional) TV: During TV reception (optional)



1 MBP button 16
2 MENU button 8, 9, 10, 11, 12, 15, 16, 17, 19, 20, 21, 22
3 Volume control dial
4 LIST button
RADIO 11, 12
CD/MD 19, 20
5 Receptor for the card remote commander
6 SOURCE (Power on/Tape/Radio/CD/MD/TV) button 5, 9, 10, 11, 16, 17, 19, 21, 22, 23
7 Display window
8 ⏏ (eject) button (located on the front side of the unit, behind the front panel) 9, 23
9 OPEN button 7, 9
10 EQ7 button 16
11 RESET button (located on the front side of the unit, behind the front panel) 7
12 OFF (Stop/Power off) button* 5, 7, 9, 17
13 Frequency select switch (located on the bottom of the unit) (XR-CA620X only)
See "Frequency select switch" in the Installation/Connections manual.
14 SOUND button 14, 16
15 ENTER button
RADIO 12
MENU 8, 9, 10, 11, 12, 15, 16, 17, 19, 20, 21, 22, 23
CD/MD 19, 20
16 MODE (◄I►) button
TAPE 9
RADIO 10, 11
CD/MD 17, 19
TV 21
17 DSPL (display mode change) button 12, 18, 19
18 Number buttons
TAPE
① **REP** 9
RADIO 10, 11
CD/MD
① **REP** 18
② **SHUF** 18
TV 22

* **Warning when installing in a car without an ACC (accessory) position on the ignition switch**
After turning off the ignition, be sure to press (OFF) on the unit for 2 seconds to turn off the clock display.
Otherwise, the clock display does not turn off and this causes battery drain.



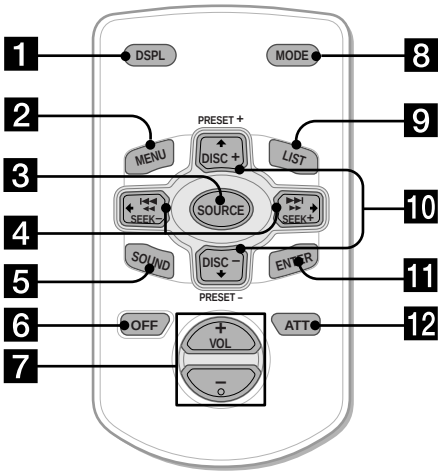
19 DISC/PRESET buttons (+/–)

RADIO	10, 11, 12
MENU	8, 9, 10, 11, 12, 15, 16, 17, 19, 20, 21, 22
CD/MD	17, 19, 20
TV	21

20 SEEK buttons (–/+)

TAPE	9
RADIO	10, 11
MENU	8, 9, 14, 15, 16, 17, 21
CD/MD	17, 19, 20
TV	22, 23

Card remote commander RM-X114 (XR-CA620X only)



The corresponding buttons of the card remote commander control the same functions as those on this unit.

1 DSPL button
2 MENU button
3 SOURCE button
4 SEEK (⬅/➡) buttons
5 SOUND button
6 OFF button
7 VOL (–/+) buttons
8 MODE button
9 LIST button
10 DISC/PRESET(⬆/⬇) buttons
11 ENTER button
12 ATT button

Note

If the units is turned off by pressing (OFF) for 2 seconds, it cannot be operated with the card remote commander unless (SOURCE) on the unit is pressed, or a cassette is inserted to activate the unit first.

Tip

Refer to "Replacing the lithium battery" for details on how to replace the batteries (page 24).

Setting the clock

The clock uses a 12-hour digital indication.

Example: To set the clock to 10:08

1 Press (MENU), then press either side of (DISC/PRESET) repeatedly until "CLOCK" appears.

❶ **Press (ENTER).**
The hour indication flashes.

❷ **Press either side of (DISC/PRESET) to set the hour.**

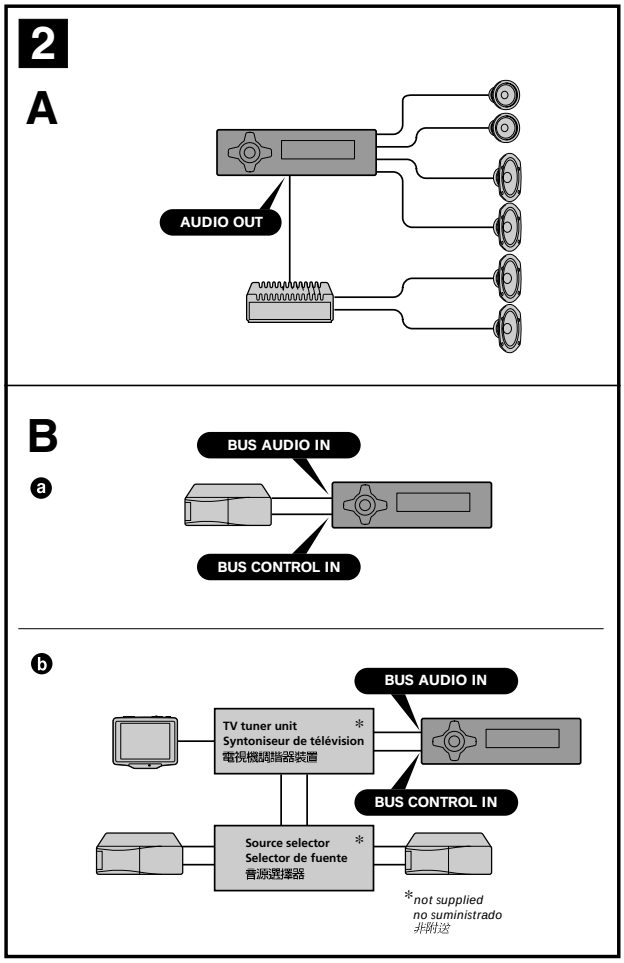
❸ **Press the (+) side of (SEEK).**
The minute indication flashes.

❹ **Press either side of (DISC/PRESET) to set the minute.**

2 Press (ENTER).

The clock starts. After the clock setting is completed, the display returns to normal play mode.

Tip
When D.INFO mode is set to ON, the time is always displayed (page 15).



Cautions

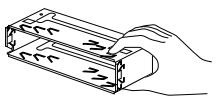
- This unit is designed for negative earth 12 V DC operation only.
- Do not get the wires under a screw, or caught in moving parts (e.g. seat railing).
- Before making connections, disconnect the earth terminal of the car battery to avoid short circuits.
- Connect the **yellow** and **red** power input leads only after all other leads have been connected.
- **Run all earth wires to a common earth point.**
- Be sure to insulate any loose unconnected wires with electrical tape for safety.

Notes on the power supply cord (yellow)
- When connecting this unit in combination with other stereo components, the connected car circuit's rating must be higher than the sum of each component's fuse.
- When no car circuits are rated high enough, connect the unit directly to the battery.

Parts list (1)

The numbers in the list are keyed to those in the instructions.

Caution
Handle the bracket ① carefully to avoid injuring your fingers.



Connection example (2)

***Notes* (2-A)**
- *Be sure to connect the earth cord before connecting the amplifier.*
- *If you connect an optional power amplifier and do not use the built-in amplifier, the beep sound will be deactivated.*

***Tip* (2-B-b)**
For connecting two or more changers, the source selector XA-C30 (optional) is necessary.

Connection diagram (3)

❶ **To a metal surface of the car**
First connect the black earth lead, then connect the yellow and red power input leads.

❷ **To the power aerial control lead or power supply lead of aerial booster amplifier**
Notes
- *It is not necessary to connect this lead if there is no power aerial or aerial booster, or with a manually-operated telescopic aerial.*
- *When your car has a built-in FM/MW/SW aerial in the rear/side glass, see "Notes on the control and power supply leads."*

❸ **To AMP REMOTE IN of an optional power amplifier**
This connection is only for amplifiers. Connecting any other system may damage the unit.

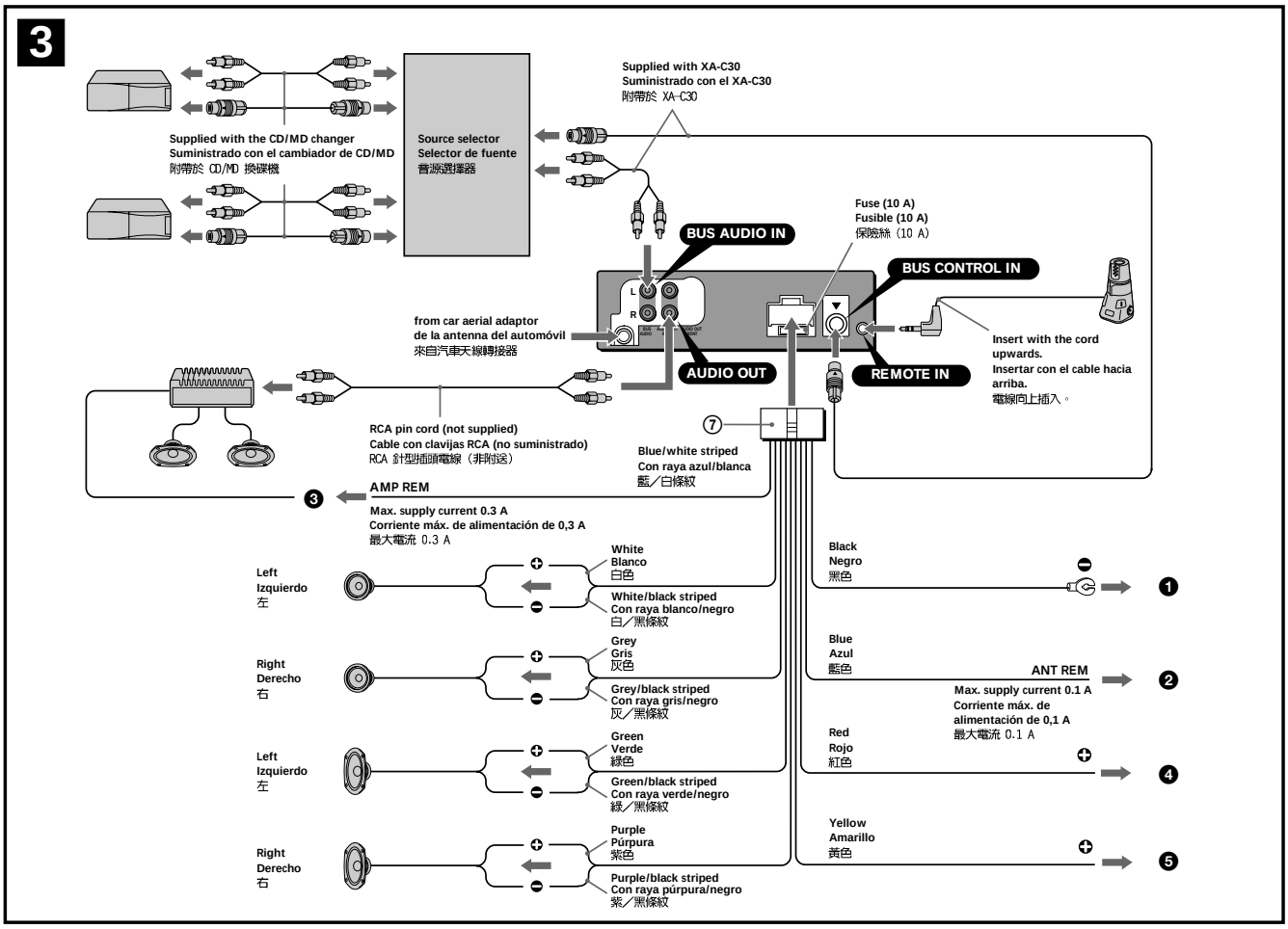
❹ **To the +12 V power terminal which is energised in the accessory position of the ignition key switch**
Notes
- *If there is no accessory position, connect to the +12 V power (battery) terminal which is energised at all times.*
  Be sure to connect the black earth to it first.
- *When your car has a built-in FM/MW/SW aerial in the rear/side glass, see "Notes on the control and power supply leads."*

❺ **To the +12 V power terminal which is energised at all times**
Be sure to connect the black earth lead to it first.

Notes on the control and power supply leads
- *The power aerial control lead (blue) supplies +12 V DC when you turn on the tuner.*
- *When your car has built-in FM/MW/SW aerial in the rear/side glass, connect the power aerial control lead (blue) or the accessory power input lead (red) to the power terminal of the existing aerial booster. For details, consult your dealer.*
- *A power aerial without relay box cannot be used with this unit.*

Memory hold connection
When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition key is turned off.

Notes on speaker connection
- *Before connecting the speakers, turn the unit off.*
- *Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities to avoid its damage.*
- *Do not connect the speaker terminals to the car chassis, or connect the terminals of the right speakers with those of the left speaker.*
- *Do not connect the earth lead of this unit to the negative (–) terminal of the speaker.*
- *Do not attempt to connect the speakers in parallel.*
- *Connect only passive speakers. Connecting active speakers (with built-in amplifiers) to the speaker terminals may damage the unit.*



Precauciones

- Esta unidad ha sido diseñada para alimentarse con 12 V CC, negativo a masa, solamente.
- No coloque los cables debajo de ningún tornillo, ni los aprisione con partes móviles (p.ej. los raíles del asiento).
- Antes de realizar las conexiones, desconecte el terminal de puesta a masa de la batería del automóvil a fin de evitar cortocircuitos.
- Conecte los cables de entrada de alimentación **amarillo** y **rojo** solamente después de haber conectado los demás.
- **Conecte todos los conductores de puesta a masa a un punto común.**
- Por razones de seguridad, asegúrese de aislar con cinta eléctrica los cables sueltos que no estén conectados.

Notas sobre el cable de suministro de alimentación (amarillo)

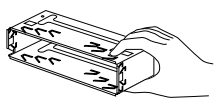
- Cuando conecte esta unidad en combinación con otros componentes estéreo, la capacidad nominal del circuito conectado del automóvil debe ser superior a la suma de los fusibles de cada componente.
- Si no hay circuitos del automóvil con capacidad nominal suficientemente alta, conecte la unidad directamente a la batería.

Lista de componentes (1)

Los números de la lista corresponden a los de las instrucciones.

Precaución

Tenga mucho cuidado al manipular el soporte ① para evitar posibles lesiones en los dedos.



Ejemplo de conexiones (2)

***Notas* (2-A)**

- *Asegúrese de conectar primero el cable de puesta a masa antes de realizar la conexión al amplificador.*
- *Si conecta un amplificador de potencia opcional y no utiliza el incorporado, los pitidos se desactivarán.*

***Consejo* (2-B-b)**

Cuando desee conectar dos o más cambiadores, necesitará un selector de fuente XA-C30 (opcional).

Diagramas de conexión (3)

❶ A una superficie metálica del automóvil
Conecte primero el cable de masa negro, y después los cables amarillo y rojo de entrada de alimentaciónpara obtener información detallada.

❷ Al cable de control de la antena motorizada o al cable de fuente de alimentación del amplificador de antena
Notas

- *Si no se dispone de antena motorizada ni de amplificador de antena, o se utiliza una antena telescópica accionada manualmente, no será necesario conectar este cable.*
- *Si el automóvil incorpora una antena de FM/MW/SW en el cristal trasero/lateral, consulte "Notas sobre los cables de control y de fuente de alimentación."*

❸ Para conectar a AMP REMOTE IN del amplificador de potencia opcional
Esta conexión es sólo para amplificadores.
La conexión de cualquier otra sistema, puede dañar la unidad.

❹ Al terminal de alimentación de +12 V que recibe energía en la posición de accesorios del interruptor de la llave de encendido
Notas

- *Si no hay posición de accesorios, conéctelo al terminal de alimentación (batería) de +12 V que recibe energía sin interrupción.*
  Asegúrese de conectar primero el cable de masa negro.
- *Si el automóvil incorpora una antena de FM/MW/SW en el cristal trasero/lateral, consulte "Notas sobre los cables de control y de fuente de alimentación."*

❺ Al terminal de alimentación de +12 V que recibe energía sin interrupción
Asegúrese de conectar primero el cable de masa negro.

Notas sobre los cables de control y de fuente de alimentación

- *El conductor de control de la antena motorizada (azul) suministrará +12 V CC cuando conecte la alimentación del sintonizador.*
- *Si el automóvil dispone de una antena de FM/MW/SW incorporada en el cristal trasero/lateral, conecte el cable de control de antena motorizada (azul) o el cable de entrada de alimentación auxiliar (rojo) al terminal de alimentación del amplificador de antena existente. Para obtener información detallada, consulte a su proveedor.*
- *Con esta unidad no es posible utilizar una antena motorizada sin caja de relé.*

Conexión para protección de la memoria

Si conecta el conductor de entrada amarillo, el circuito de la memoria recibirá siempre alimentación, incluso aunque ponga la llave de encendido en la posición OFF.

Notas sobre la conexión de los altavoces

- *Antes de conectar los altavoces, desconecte la alimentación de la unidad.*
- *Utilice altavoces con una impedancia de 4 a 8 ohmios con la capacidad de potencia adecuada para evitar que se dañen.*
- *No conecte los terminales de altavoz al chasis del automóvil, ni conecte los terminales del altavoz derecho con los del izquierdo.*
- *No conecte el cable de puesta a tierra de esta unidad al terminal negativo (–) del altavoz.*
- *No intente conectar los altavoces en paralelo.*
- *Conecte solamente altavoces pasivos. Si conecta altavoces activos (con amplificadores incorporados) a los terminales de altavoz, puede dañar la unidad.*

警告

- 本機祇能使用負極接地 12 V 直流電源。
- 不要使導線夾在螺栓下，或繞掛在移動部件上（如：座椅扶手上）。
- 連接前，先拔去汽車電池的接地端子，以免發生短路。
- **黃色**和**紅色**電源輸入導線必須在所有其它導線都連接完畢以後才連接。
- **將所有地線都連接到同一接地點**。
- 爲了安全，請確認把沒有連接的導線用電器膠帶包紮進行絕緣。

電源導線須知（黃色）

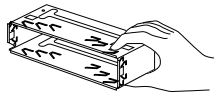
- 將本機與其它立體聲裝置相連接時，所連接的汽車電路容量必須大於每個裝置保險絲容量的總和。
- 當汽車電路容量不夠大時，請將本機直接與電池相連接。

零件一覽表（1）

圖示數字與說明書中的數字是一致的。

警告

拿取裝卸支架 ① 時，請特別注意別傷到手指。



線路連接圖例（2）

註（2-A）

- *務必在接放大器之前連接地線。*
- *如果您連接了選購件的功率放大器而不使用內置的放大器，將無報警聲功能。*

***提示*（2-B-b）**

若要連接 2 台或 2 台以上換碟機時，必須使用音源選擇器 XA-C30（選購件）。

線路連接圖（3）

❶ 至汽車的金屬表面
首先連接黑色接地導線，然後再連接黃色和紅色電源輸入導線。

❷ 至電動天線控制導線或天線升壓放大器的電源導線
註

- *如無電動天線、增壓器或手動操作的伸縮天線，便不需連接此導線。*
- *您的汽車的後玻璃窗中如果有內置 FM/MW/SW 天線，即請參看"控制和電源線須知"。*

❸ 至選購的功率放大器的 AMP REMOTE IN（放大器遙控輸入）
本連接僅用於放大器。連接任何其它系統可能會損壞本機。

❹ 至在點火鑰匙的輔助位置上通電的 +12 V 電源端子
註

- *若沒有輔助位置，則請連接至常時通電的 +12 V 電源（電池）端子。*
  務請首先將黑色接地導線與其連接。
- *您的汽車的後玻璃窗中如果有內置 FM/MW/SW 天線，即請參看"控制和電源線須知"。*

❺ 至常時都通電的 +12 V 電源端子
務請首先將黑色接地導線與其連接。

控制和電源線須知

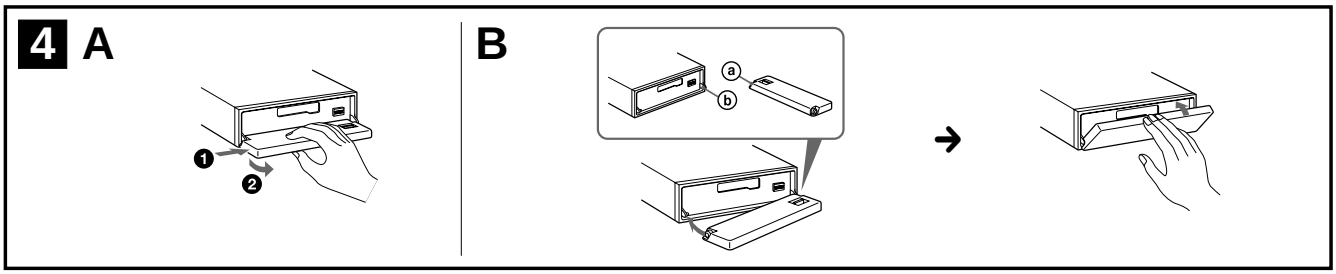
- *接通調諧器電源時，電動天線的控制導線（藍色）便能提供 +12 V 直流電。*
- *若您的汽車後玻璃窗上有內置 FM/MW/SW 天線，須將電動天線控制導線（藍色）或輔助電源輸入導線（紅色）連接到現有天線放大器上的電源端子上。詳細內容請向銷售商諮詢。*
- *本機不能使用不具備繼電箱的電動天線。*

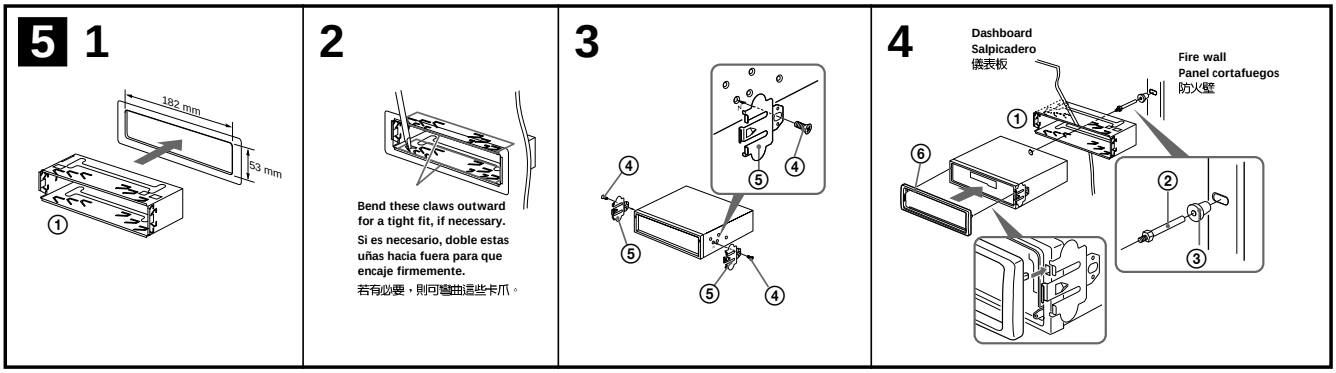
保持記憶的線路連接法

當連接好黃色電源輸入導線時，即使汽車發動機點火鑰匙被轉在電源以斷之處，電源仍繼續朝音響供給記憶用電路，以保持所記憶著的數據。

連接揚聲器時的注意事項

- *連接揚聲器電線以前，請先切斷本機電源。*
- *使用阻抗爲 4-8Ω 且具有充分功率處理容量的揚聲器，以免損壞揚聲器。*
- *不要將揚聲器端子連接到汽車底盤上或將有揚聲器端子與左揚聲器端子相連接。*
- *切勿將本機的接地導線連接至揚聲器的負(–)接線柱。*
- *揚聲器不可以並聯連接。*
- *請僅連接無源揚聲器。若將有源揚聲器（帶內置放大器）連接到揚聲器端子上會損壞本機。*





Precautions

- Choose the installation location carefully so that the unit will not interfere with normal driving operations.
- Avoid installing the unit in areas subject to dust, dirt, excessive vibration, or high temperatures, such as in direct sunlight or near heater ducts.
- Use only the supplied mounting hardware for a safe and secure installation.
- There must be a distance of at least 15 cm between the cassette slot of the unit and shift lever in order to insert a cassette easily. Choose the installation location carefully so the unit does not interfere with gear shifting and other driving operations.

Mounting angle adjustment

Adjust the mounting angle to less than 20°.

How to detach and attach the front panel (4)

Before installing the unit, detach the front panel.

4-A To detach

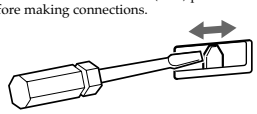
Before detaching the front panel, be sure to press (OFF). Press (OPEN), then slide the front panel to the right side, and pull out the left side.

4-B To attach

Place the hole ⓐ in the front panel onto the spindle ⓑ on the unit as illustrated, then push the left side in.

Frequency select switch (XR-CA620X)

The MW (FM) tuning interval is factory-set to the 10 k (200 k) position. If the frequency allocation system of your country is based on 9 kHz (50 kHz) interval, set the switch on the bottom of the unit to the 9 k (50 k) position before making connections.



Mounting example (5)

Installation in the dashboard

Mounting the unit in a Japanese car (6)

You may not be able to install this unit in some makes of Japanese cars. In such a case, consult your Sony dealer.

Note

To prevent malfunction, install only with the supplied screws ④.

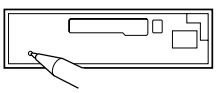
Warning when installing in a car without ACC (accessory) position on the ignition key switch

Be sure to press (OFF) on the unit for two seconds to turn off the clock display after turning off the engine.

When you press (OFF) only momentarily, the clock display does not turn off and this causes battery wear.

RESET button

When the installation and connections are completed, be sure to press the RESET button with a ballpoint pen, etc.



Precauciones

- Elija cuidadosamente el lugar de montaje de forma que la unidad no interfiera las funciones normales de conducción.
- Evite instalar la unidad donde pueda quedar sometida a altas temperaturas, como a la luz solar directa o al aire caliente de calefacción, o a polvo, suciedad, o vibraciones excesivas.
- Para realizar una instalación segura y firme, utilice solamente la ferretería de montaje suministrada.
- Para que sea posible insertar cassettes con facilidad, debe haber una distancia de al menos 15 cm entre la ranura de inserción de cassettes de la unidad y la palanca de cambios. Elija cuidadosamente el lugar de instalación de forma que la unidad no entorpezca las operaciones de cambio de marchas o de conducción en general.

Ajuste del ángulo de montaje

Ajuste el ángulo de montaje a menos de 20°.

Forma de extraer e instalar el panel frontal (4)

Antes de instalar la unidad, extraiga el panel frontal.

4-A Para extraerlo

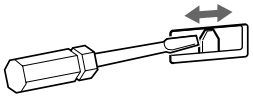
Antes de extraer el panel frontal, ceriórese de presionar (OFF). Después presione (OPEN) a fin de abrirlo, después deslícelo hacia la derecha, y por último tire de su parte izquierda.

4-B Para instalarlo

Coloque el orificio ⓐ del panel frontal en el eje ⓑ de la unidad, como se muestra en la ilustración, y después presione la parte izquierda.

Selector de frecuencia (XR-CA620X)

El intervalo de sintonía de MW (FM) ha sido ajustado en fábrica a la posición 10 k (200 k). Si el sistema de asignación de frecuencias de su país se basa en el intervalo de 9 kHz (50 kHz), ponga este selector, situado en la base de la unidad, en la posición 9 k (50 k) antes de realizar las conexiones.



Ejemplo de montaje (5)

Instalación en el salpicadero

Montaje de la unidad en un automóvil japonés (6)

Usted no podrá instalar esta unidad en algunos automóviles japoneses. En tal caso, consulte a su proveedor Sony.

Nota

Para evitar que se produzcan fallos, realice la instalación solamente con los tornillos suministrados ④.

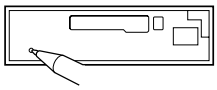
Advertencia sobre la instalación en un automóvil que no disponga de posición ACC (accesorios) en el interruptor de la llave de encendido

Asegúrese de pulsar (OFF) en la unidad durante dos segundos para desactivar la indicación del reloj después de apagar el motor.

Si pulsa (OFF) sólo momentáneamente, la indicación del reloj no se desactivará y esto causará el desgaste de la batería.

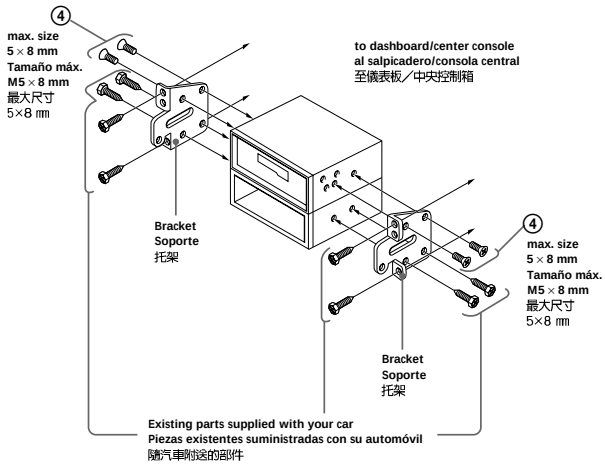
Botón RESET

Cuando finalice la instalación y las conexiones, cerciórese de pulsar el botón RESET con un bolígrafo, etc.



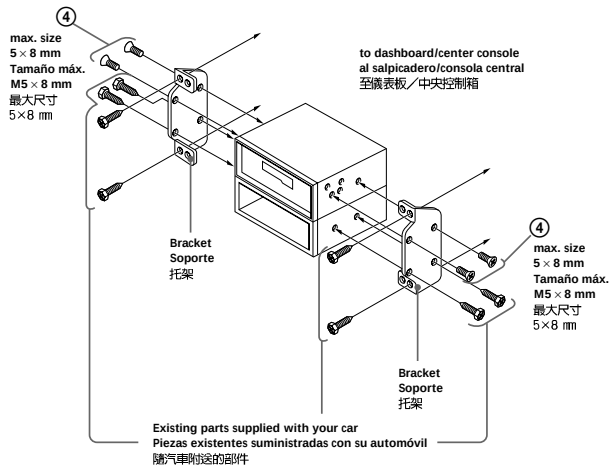
6 A

TOYOTA



B

NISSAN



使用前注意事項

- 仔細選擇安裝位置，使之不妨礙正常的駕駛操作。
- 避免將本機放在高溫之處，如陽光直接照射、暖氣機前、或灰塵極多、髒亂，以及極易受震動等地方。
- 爲使安裝得以安全和可靠，祇能使用提供的安裝零件。
- 在本機的卡帶槽口和變速桿之間，至少需保持 15 cm 距離以便於裝插卡帶。請留心選擇安裝位置以便使機器不至於妨礙您排檔和其他駕車操作。

安裝角度之調整

請在 20° 以內調整安裝角度。

如何拆卸和裝配前面板（4）

安裝本機之前，請先拆卸前面板。

4-A 拆卸

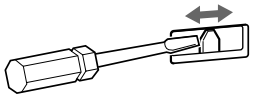
拆卸前面板之前，須先按下 (OFF) 鍵。然後，按下 (OPEN) 鍵以便開啓前面板，將前面板稍微向右邊滑動，然後將前面板的左側竝出。

4-B 裝配

如圖所示，將前面板的 ⓐ 孔搭在本機的支軸 ⓑ 上，然後推入左側。

頻率選擇開關 (XR-CA620X)

MW (FM) 調諧間隔在出廠前被設定在 10 k (200 k) 位置上。若貴國的頻率分配系統是以 9 kHz (50 kHz) 間隔爲基礎的，連接前，請將本機底部上的開關設定在 9 k (50 k) 位置上。



安裝示例（5）

安裝在儀錶板裡

將本機安裝於日本產汽車上時（6）

有的日本產汽車不能安裝本機，在這種情形下，請您向當地的 Sony 經銷商諮詢。

註
爲防止發生故障，安裝時只能使用附送的螺絲 ④。

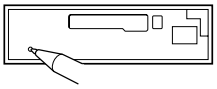
安裝在點火鑰匙開關上沒有 ACC（輔助）位置的汽車上時的警告

在關掉汽車引擎之後，一定請按下機器上的 (OFF) 兩秒以關掉時鐘顯示。

如果只短暫地按一下 (OFF)，將不會關掉時鐘顯示而浪費電池。

RESET 按鈕

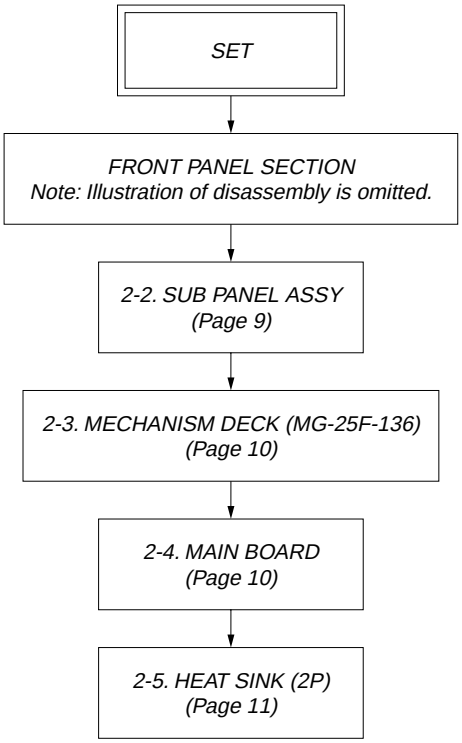
當安裝和連接完成後，務請用圓珠筆等按壓 RESET 按鈕。



SECTION 2
DISASSEMBLY

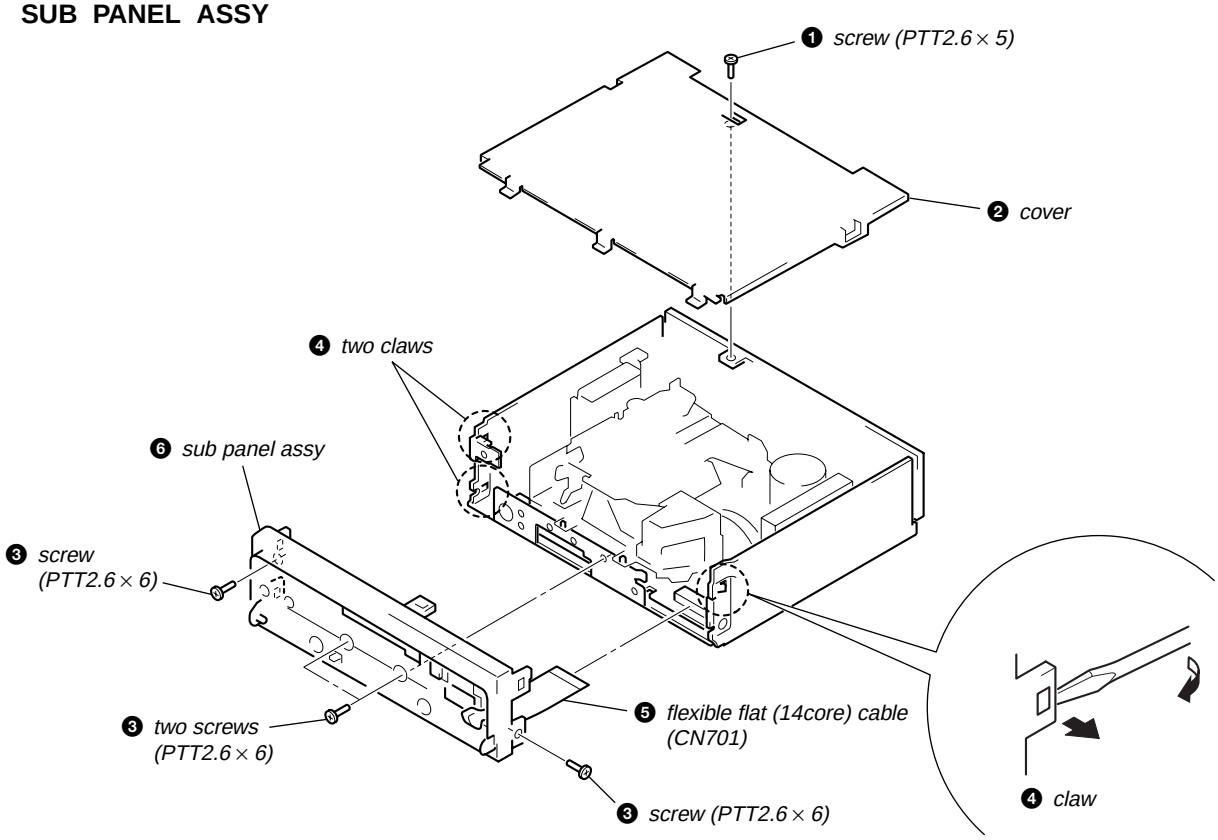
• This set can be disassembled in the order shown below.

2-1. DISASSEMBLY FLOW

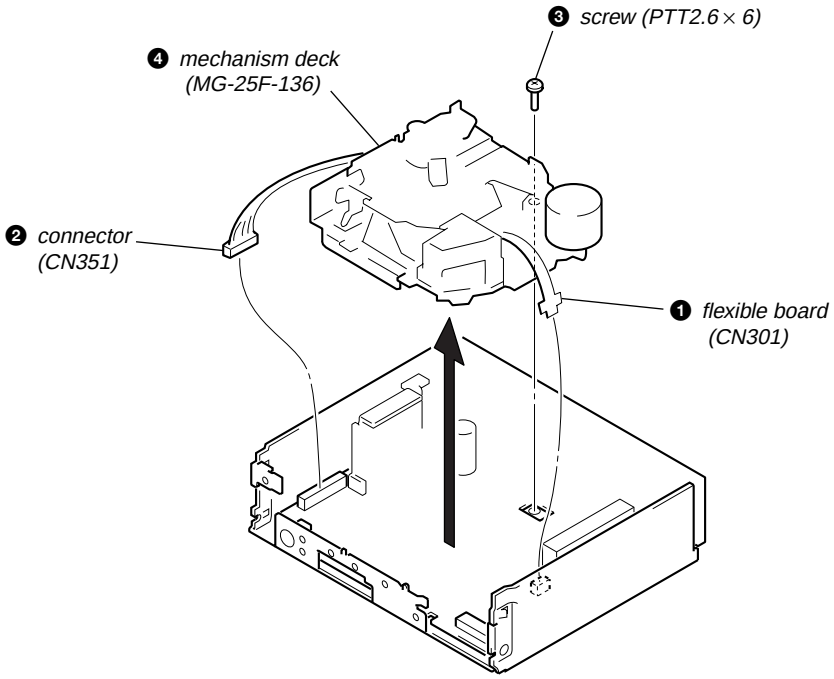


Note: Follow the disassembly procedure in the numerical order given.

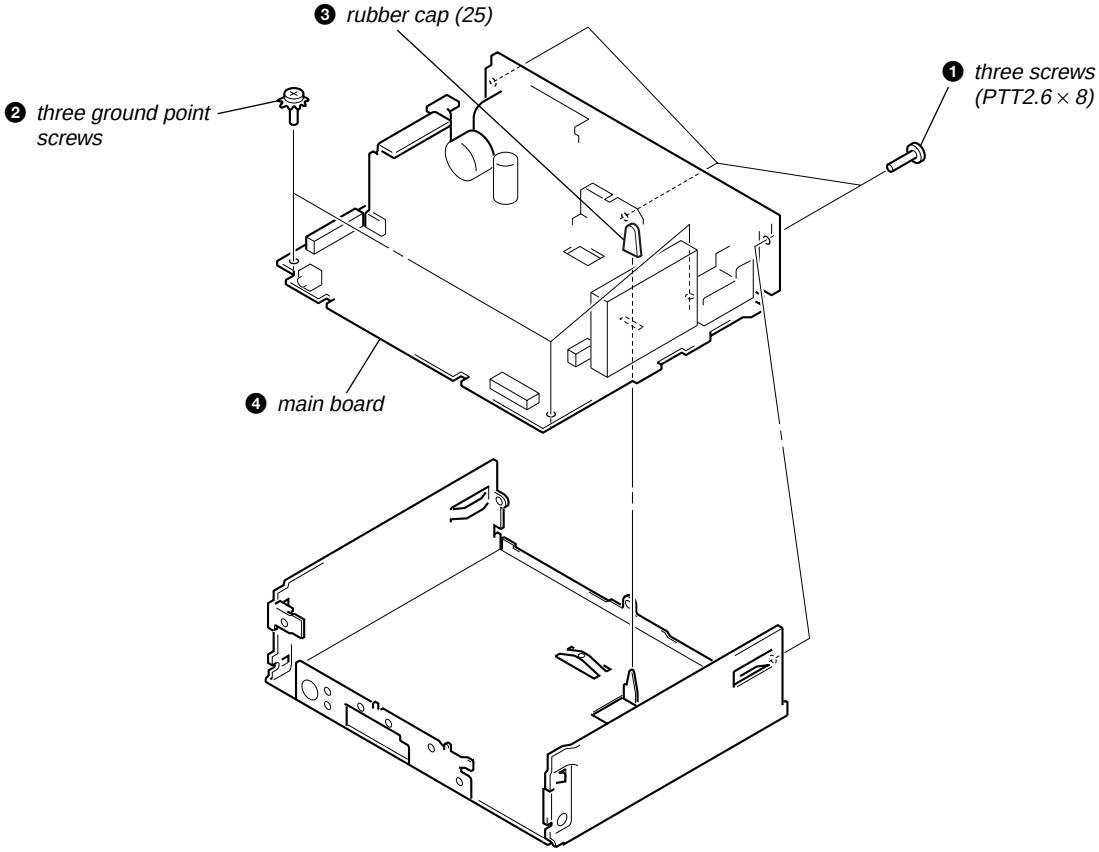
2-2. SUB PANEL ASSY


❶ screw (PTT2.6 × 5)
❷ cover
❹ two claws
❻ sub panel assy
❸ screw (PTT2.6 × 6)
❸ two screws (PTT2.6 × 6)
❺ flexible flat (14core) cable (CN701)
❸ screw (PTT2.6 × 6)
❹ claw

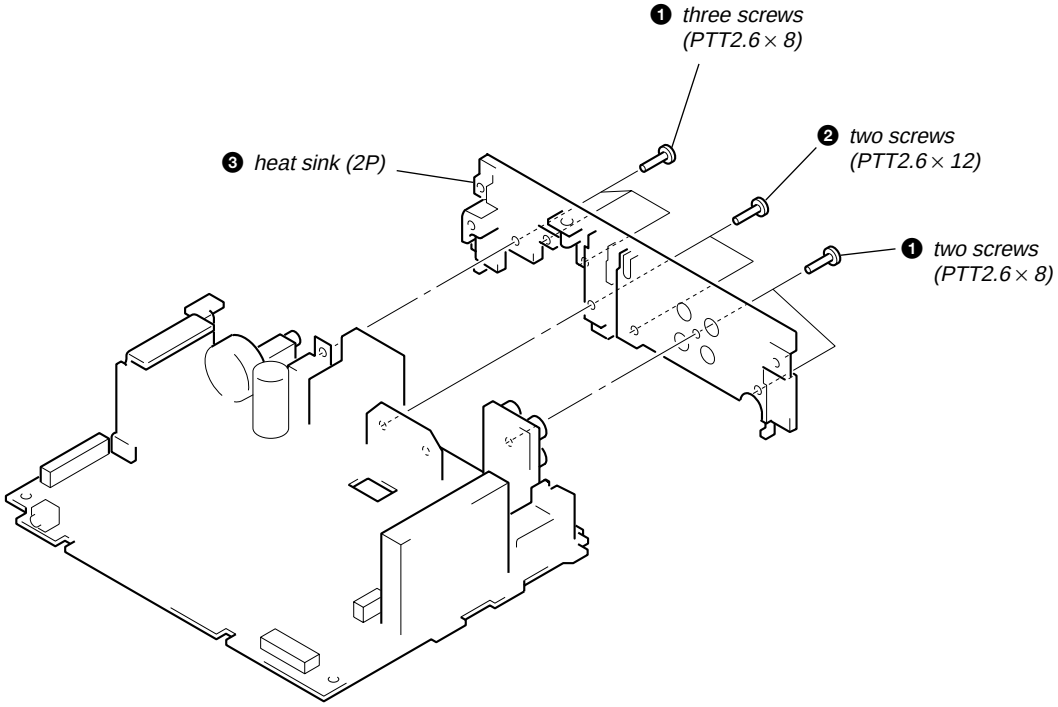
2-3. MECHANISM DECK (MG-25F-136)



2-4. MAIN BOARD



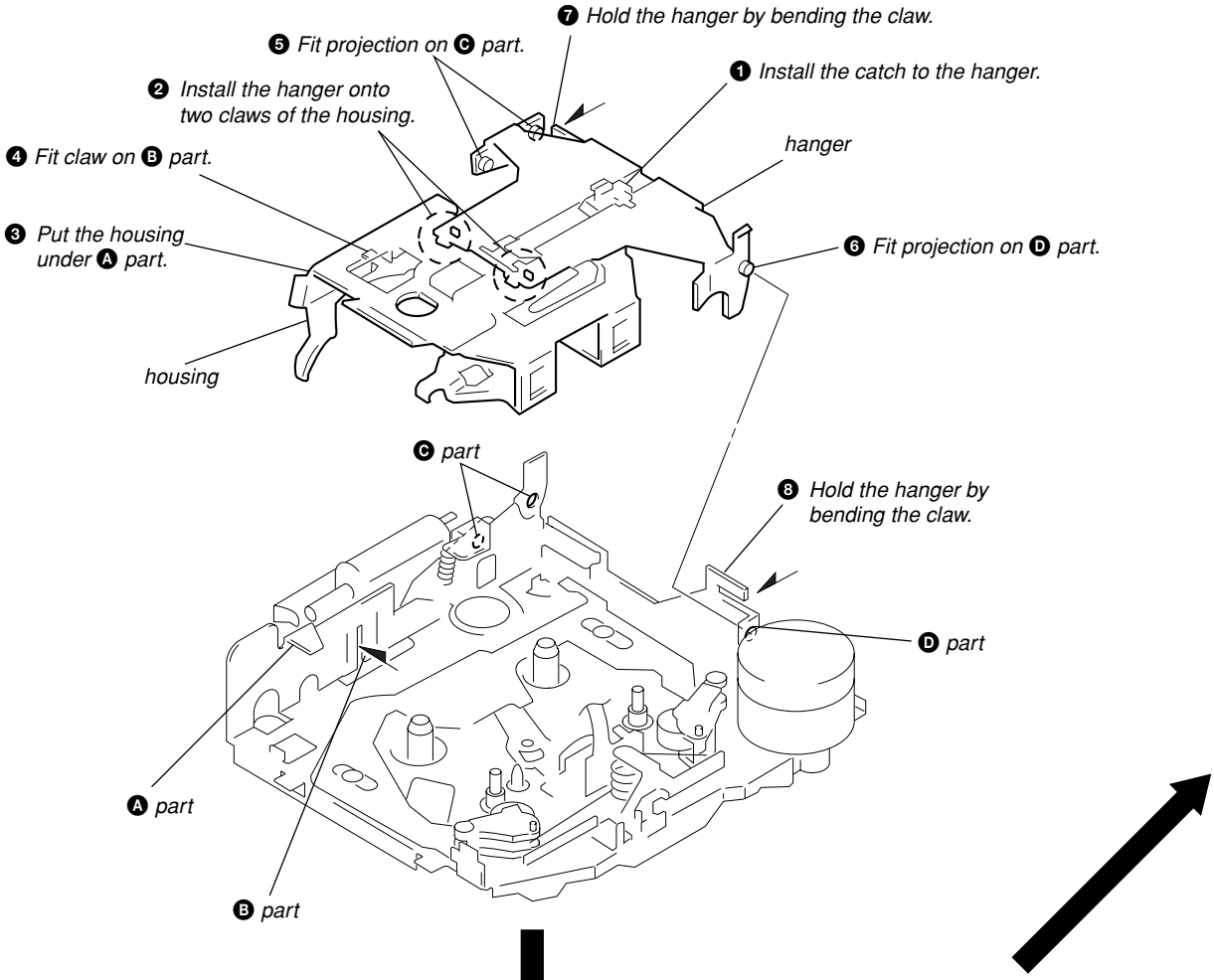
2-5. HEAT SINK (2P)



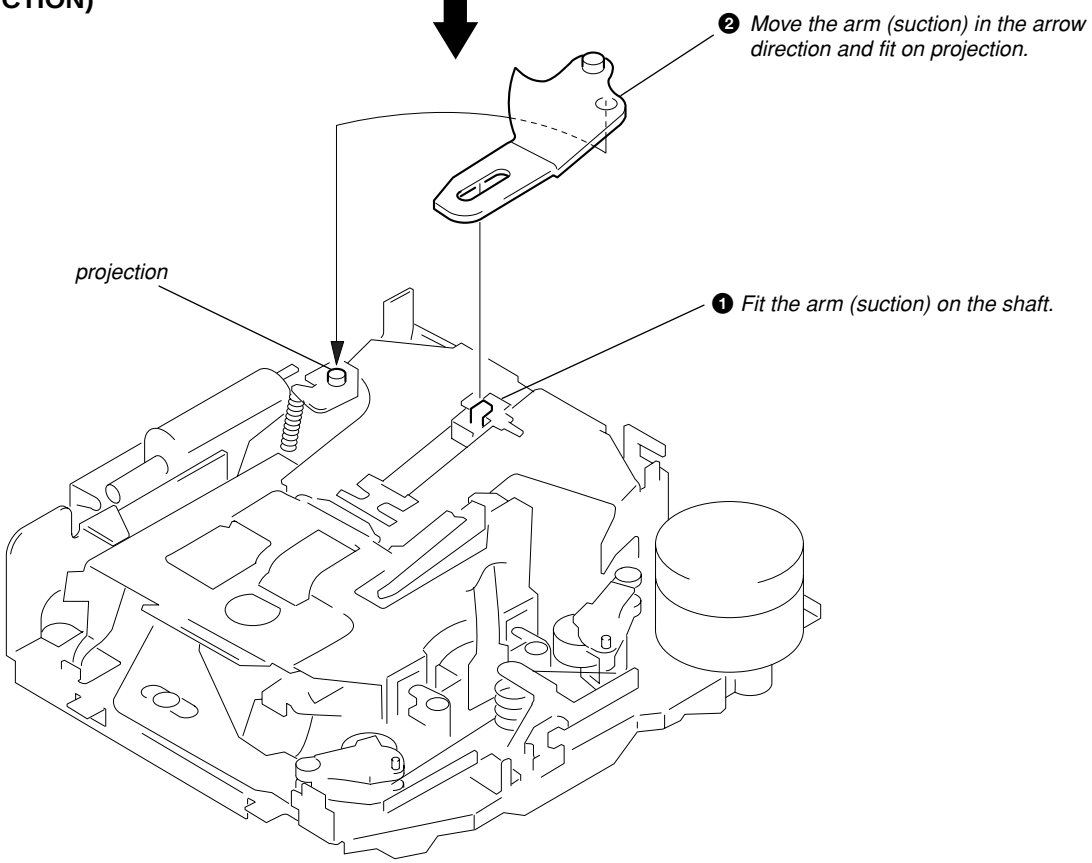
SECTION 3
ASSEMBLY OF MECHANISM DECK

Note: Follow the assembly procedure in the numerical order given.

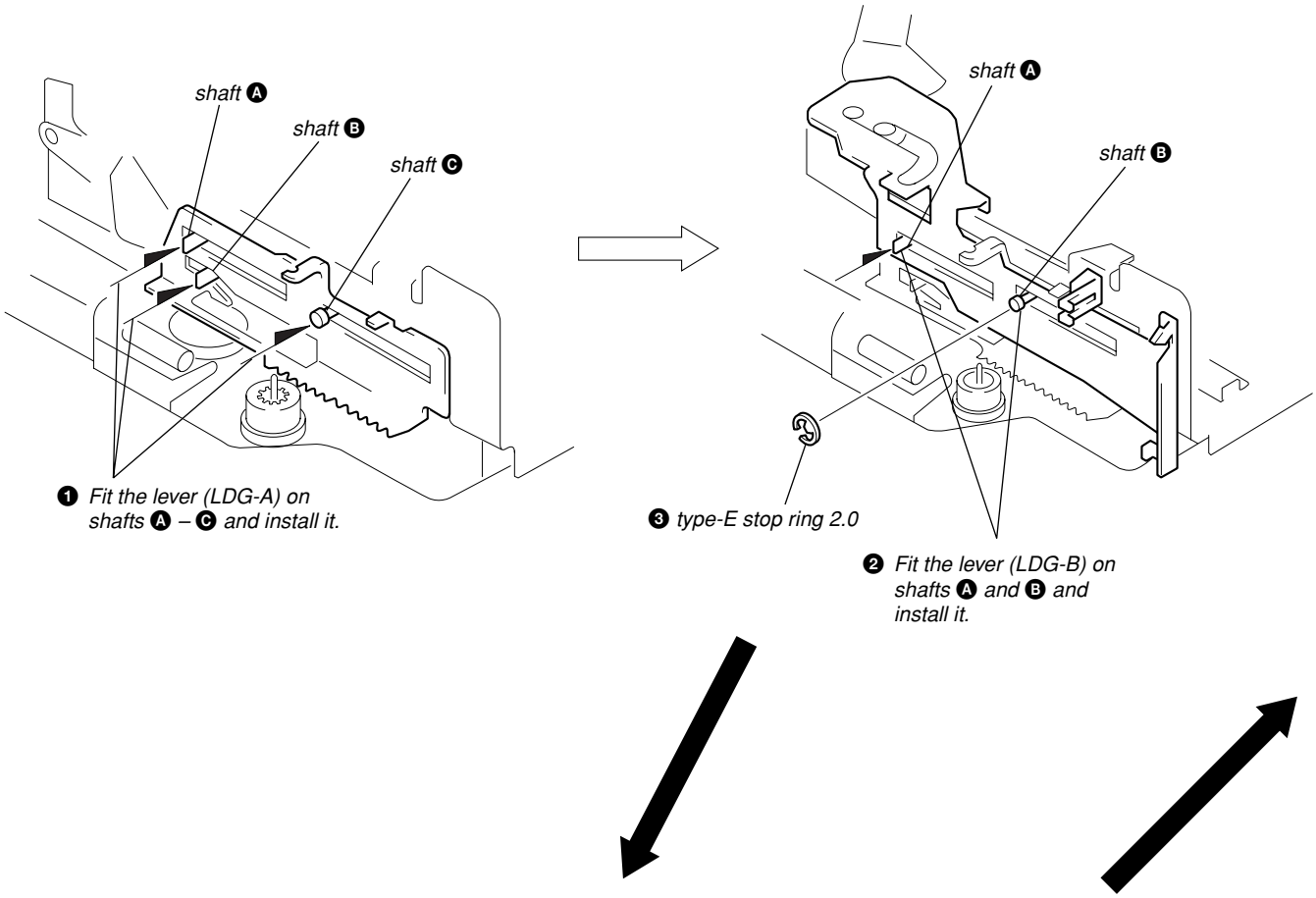
3-1. HOUSING


❼ Hold the hanger by bending the claw.
❺ Fit projection on Ⓒ part.
❶ Install the catch to the hanger.
❷ Install the hanger onto two claws of the housing.
hanger
❹ Fit claw on Ⓑ part.
❸ Put the housing under Ⓐ part.
❻ Fit projection on Ⓓ part.
housing
Ⓒ part
❽ Hold the hanger by bending the claw.
Ⓓ part
Ⓐ part
Ⓑ part

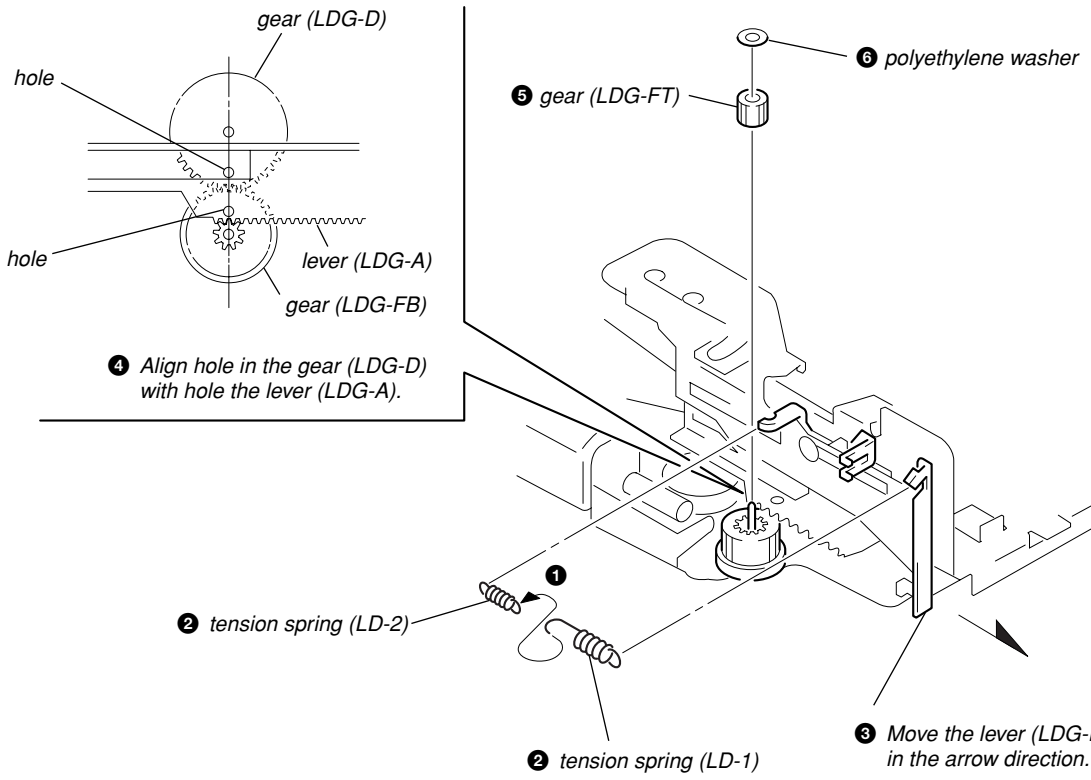
3-2. ARM (SUCTION)



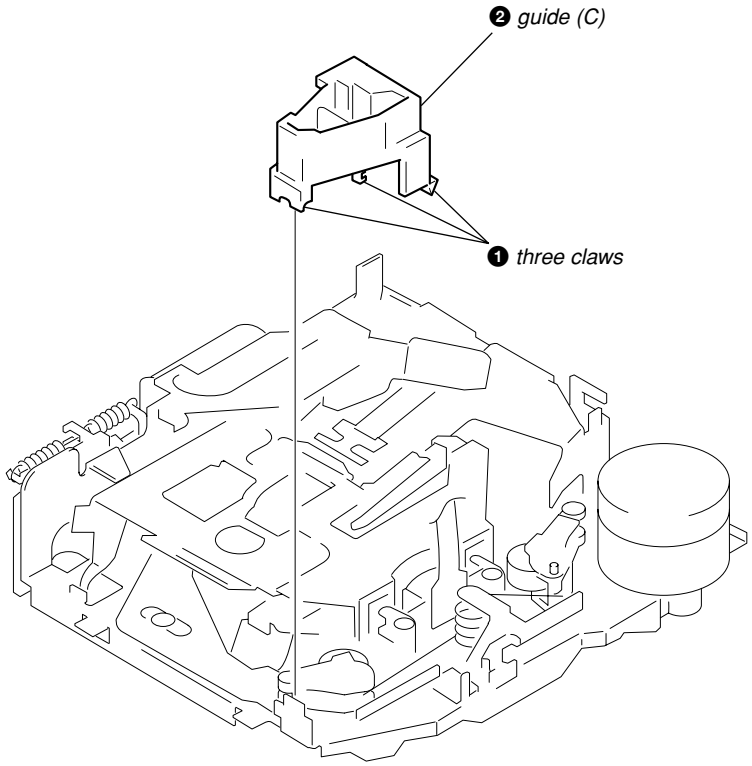
3-3. LEVER (LDG-A) / (LDG-B)


shaft Ⓐ
shaft Ⓑ
shaft Ⓒ
❶ Fit the lever (LDG-A) on shafts Ⓐ – Ⓒ and install it.
shaft Ⓐ
shaft Ⓑ
❸ type-E stop ring 2.0
❷ Fit the lever (LDG-B) on shafts Ⓐ and Ⓑ and install it.

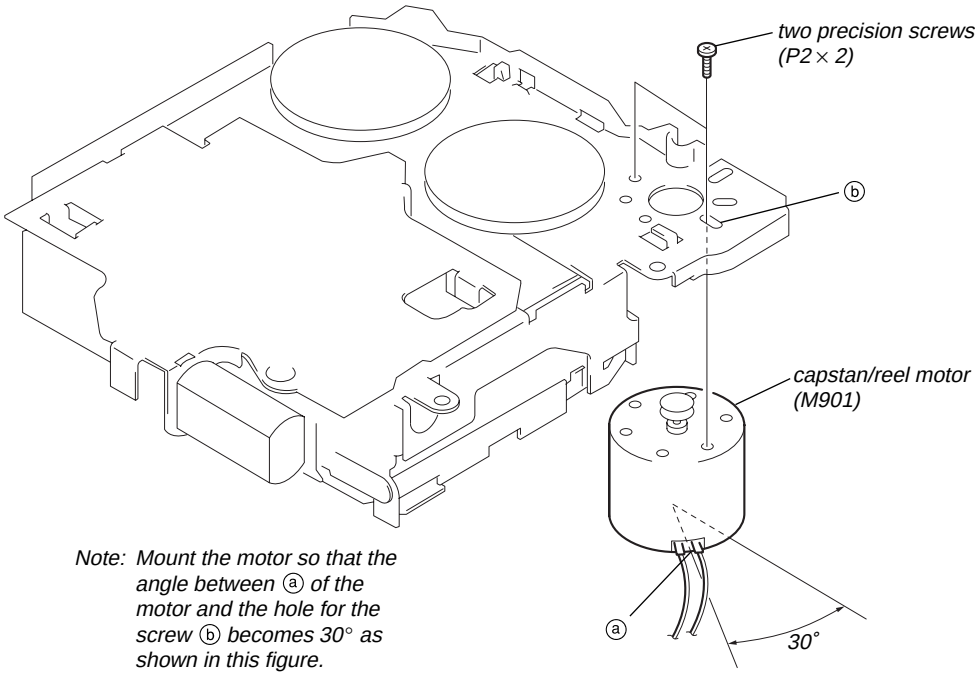
3-4. GEAR (LDG-FT)



3-5. GUIDE (C)



3-6. MOUNTING POSITION OF CAPSTAN/REEL MOTOR (M901)



Note: Mount the motor so that the angle between ⓐ of the motor and the hole for the screw ⓑ becomes 30° as shown in this figure.

SECTION 4
MECHANICAL ADJUSTMENTS

1. Clean the following parts with a denatured-alcohol-moistened swab:
   playback head pinch roller
   rubber belt capstan
   idler
2. Demagnetize the playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. The adjustments should be performed with the power supply voltage (14.4 V) unless otherwise noted.

• Torque Measurement

Mode	Torque Meter	Meter Reading
Forward	CQ-102C	2.95 – 6.37 mN•m (30 – 65 g•cm) (0.42 – 0.90 oz•inch)
Forward Back Tension	CQ-102C	0.05 – 0.44 mN•m (0.5 – 4.5g•cm) (0.01 – 0.06 oz•inch)
Reverse	CQ-102RC	2.95 – 6.37 mN•m (30 – 65 g•cm) (0.42 – 0.90 oz•inch)
Reverse Back Tension	CQ-102RC	0.05 – 0.44 mN•m (0.5 – 4.5g•cm) (0.01 – 0.06 oz•inch)
FF, REW	CQ-201B	5.89 – 19.61 mN•m (60 – 200 g•cm) (0.83 – 2.78 oz•inch)

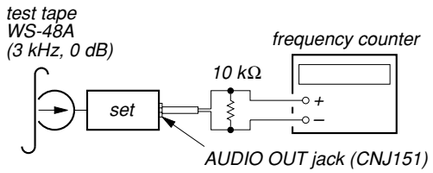
• Tape Tension Measurement

Mode	Tension Meter	Meter Reading
Forward	CQ-403A	more than 60 g (more than 2.12 oz)
Reverse	CQ-403R	more than 60 g (more than 2.12 oz)

SECTION 5
ELECTRICAL ADJUSTMENTS

TAPE DECK SECTION | 0 dB=0.775 V

Tape Speed Adjustment
Setting:



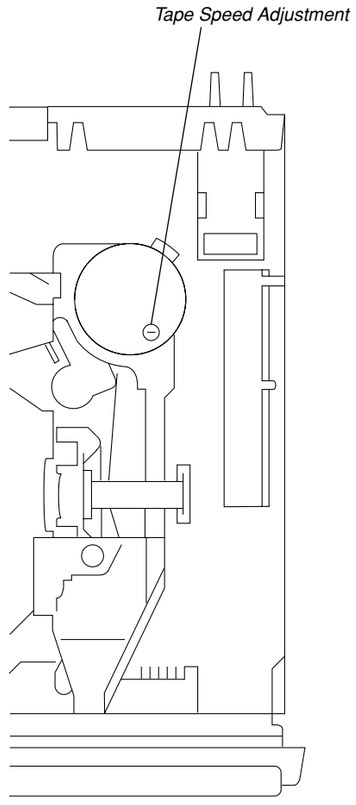
Procedure:
1. Put the set into the FWD PB mode.
2. Adjust adjustment resistor for inside capstan motor so that the reading on the frequency counter becomes 3,000 Hz.

Specification: Constant speed

Frequency counter
2,955 to 3,075 Hz

Adjustment Location:

– SET UPPER VIEW –



TUNER SECTION

Tuner section adjustments are done automatically in this set.

SECTION 6
DIAGRAMS

6-1. NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

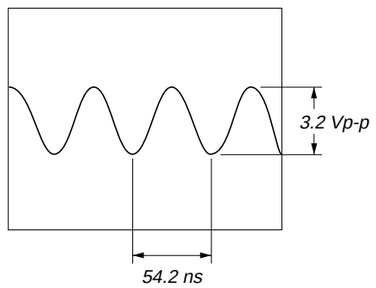
Note on Printed Wiring Board:
- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ▬ : Pattern from the side which enables seeing.

Caution:	
Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.

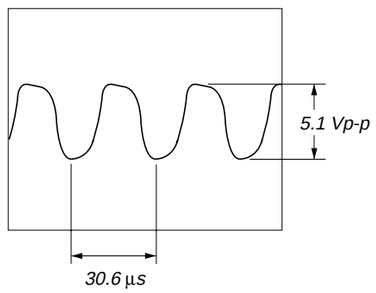
Note on Schematic Diagram:
- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- ▭ : panel designation.
- ▬ : B+ Line.
- Power voltage is dc 14.4V and fed with regulated dc power supply from ACC and BATT cords.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
  ( ) : AM
  ⟨⟨ ⟩⟩ : TAPE PLAYBACK
  ✻ : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM
  ➡ : AM
  Σ : TAPE PLAYBACK
  ⇨ : BUS AUDIO IN

• Waveforms
– MAIN Board –

❶ IC501 ⑫ (OSCOUT)

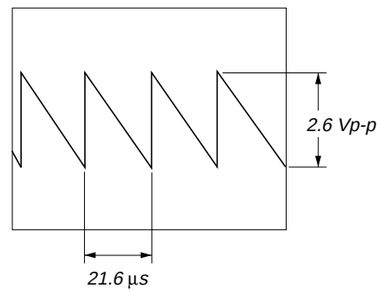


❷ IC501 ⑯ (XOUT)

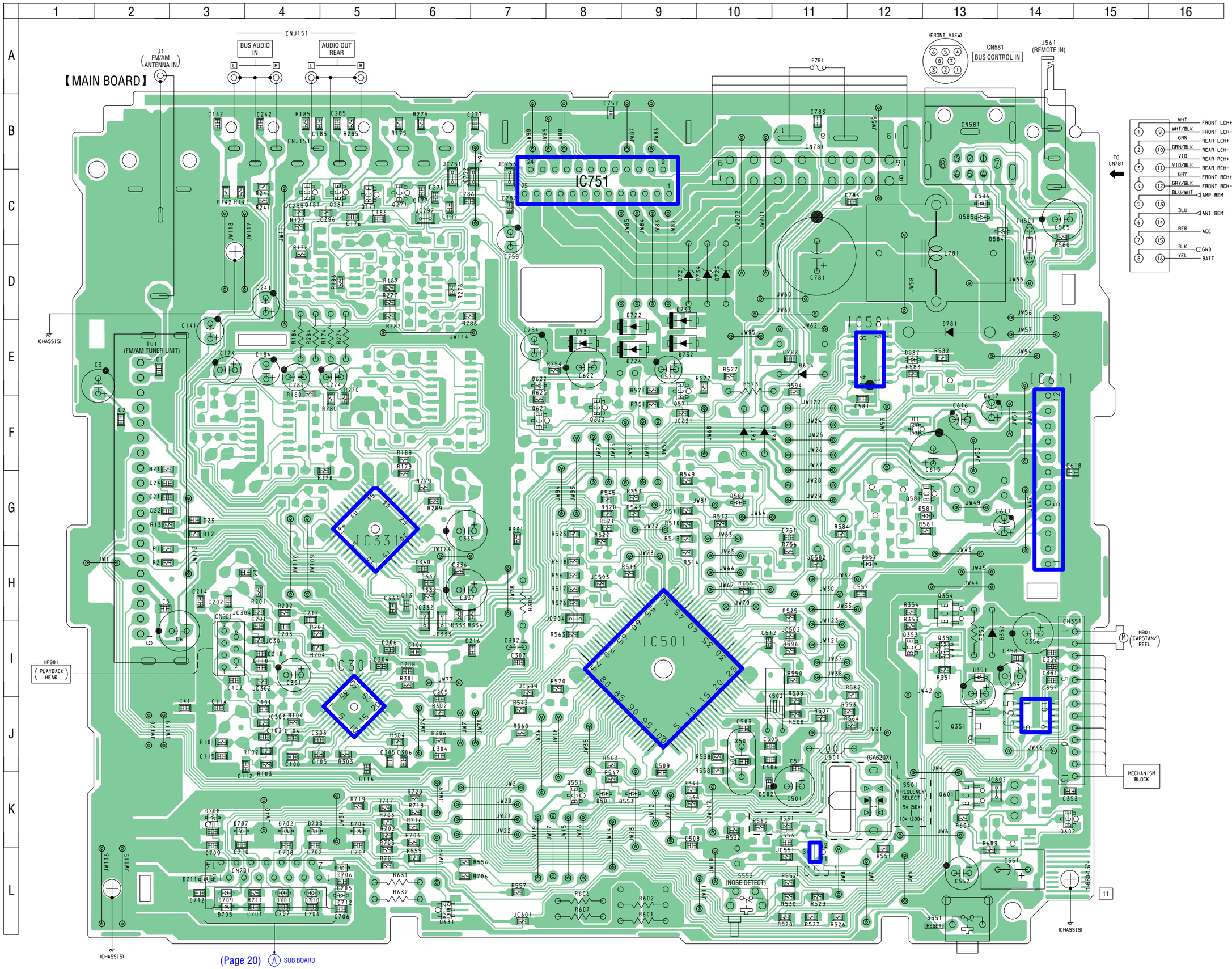


– KEY Board –

❸ IC501 ㉞ (OSC)



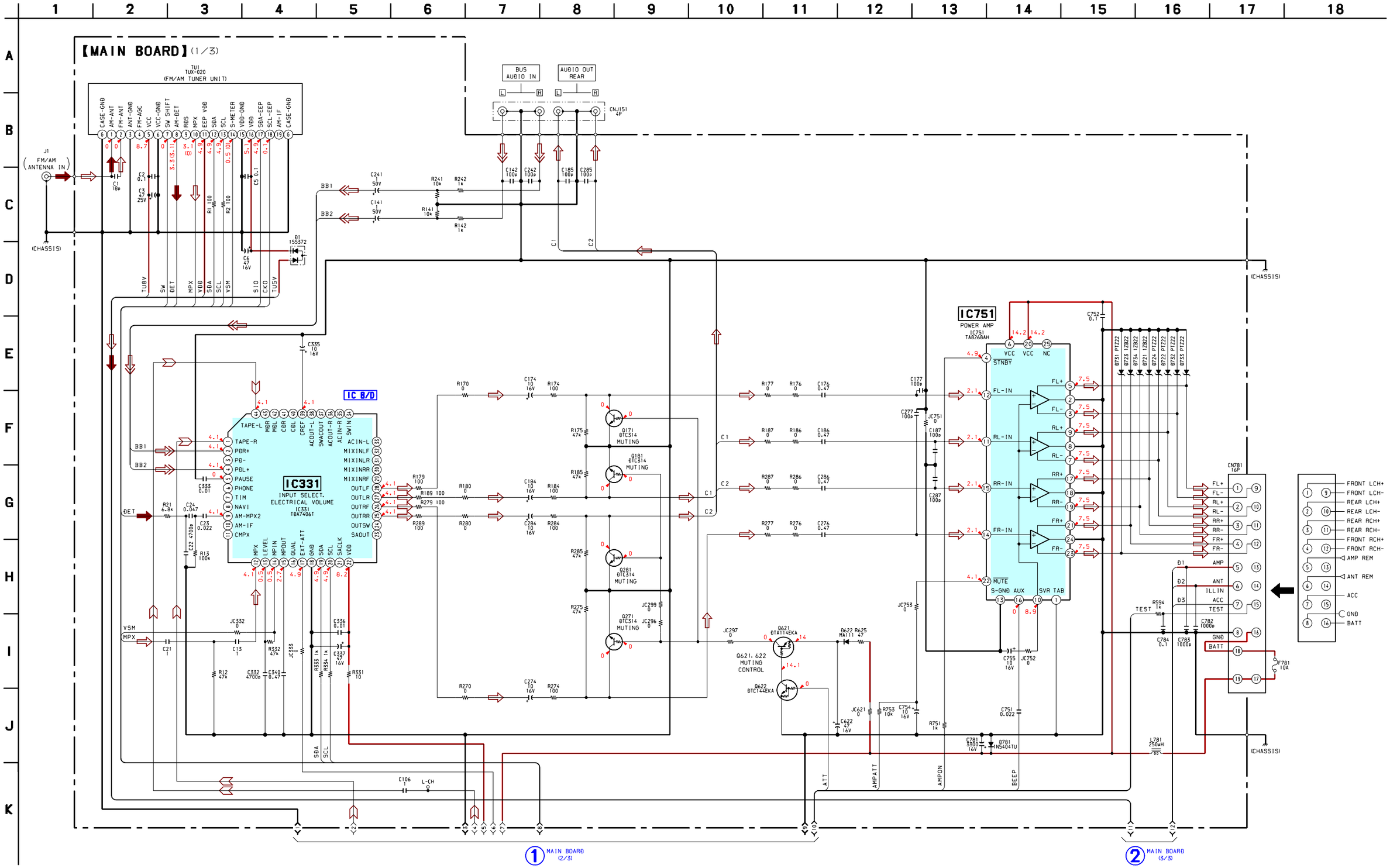
6-2. PRINTED WIRING BOARD – MAIN Board –



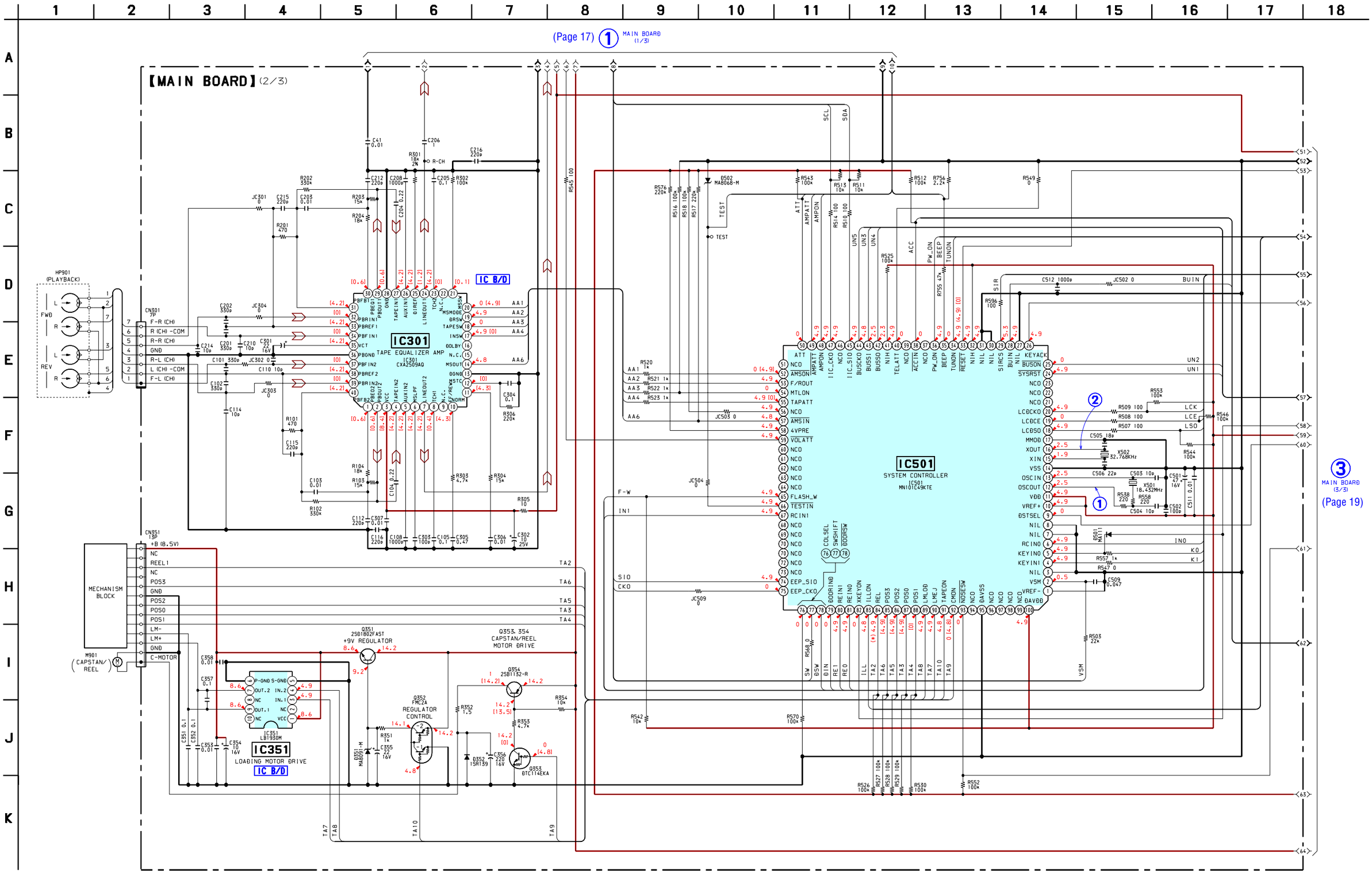
- **Semiconductor Location**

Ref. No.	Location
D1	F-12
D351	I-13
D352	I-13
D501	K-8
D502	G-10
D552	H-12
D553	K-9
D581	G-13
D582	E-12
D584	C-14
D585	C-13
D586	C-13
D610	F-10
D611	F-10
D614	E-11
D622	E-7
D701	L-4
D702	K-4
D703	K-4
D704	K-5
D705	L-3
D706	G-5
D707	K-3
D708	K-3
D709	L-3
D710	L-4
D711	L-3
D712	G-5
D721	D-9
D722	E-9
D723	D-10
D724	E-9
D731	E-8
D732	E-9
D733	E-9
D734	D-10
D781	E-13
IC301	J-5
IC331	G-5
IC351	J-14
IC501	I-9
IC551	L-11
IC581	E-12
IC611	G-14
IC751	C-8
Q171	C-5
Q181	C-4
Q271	C-6
Q281	C-5
Q351	J-13
Q352	I-13
Q353	I-12
Q354	H-13
Q551	K-8
Q571	E-9
Q581	G-13
Q601	K-13
Q602	K-14
Q621	F-7
Q622	F-8
Q631	L-6

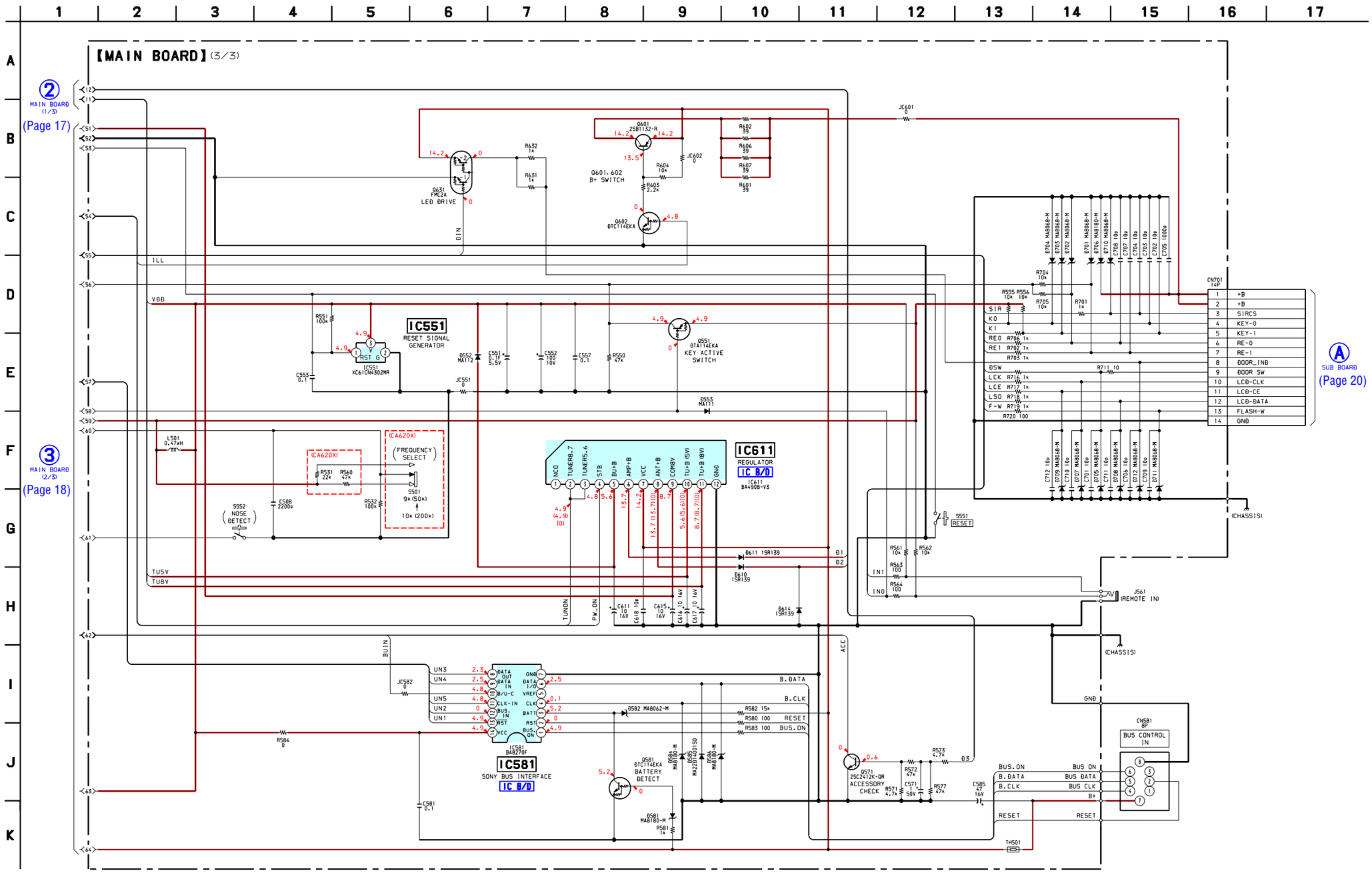
6-3. SCHEMATIC DIAGRAM – MAIN Board (1/3) – • See page 21 for IC Block Diagram.



6-4. SCHEMATIC DIAGRAM – MAIN Board (2/3) – • See page 15 for Waveforms. • See page 21 for IC Block Diagrams.

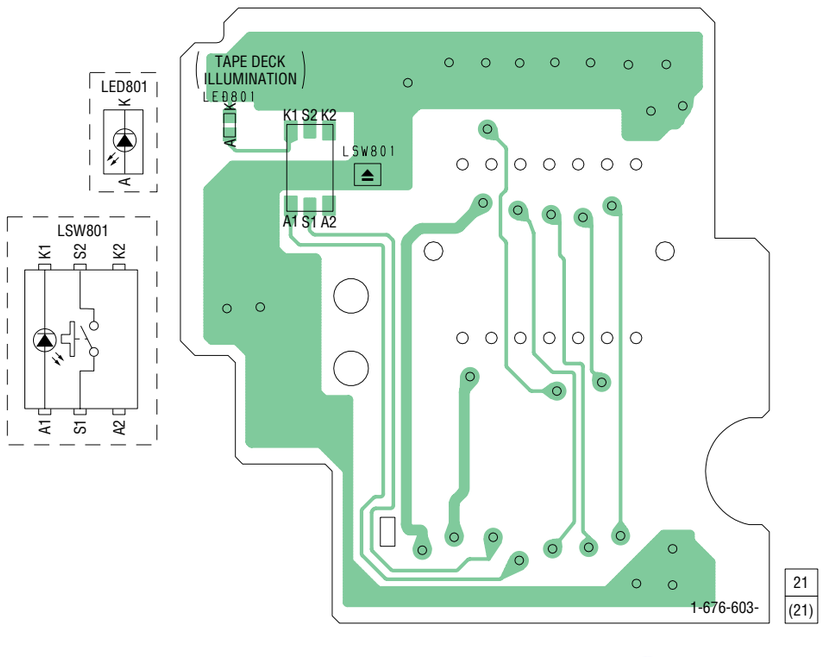


6-5. SCHEMATIC DIAGRAM – MAIN Board (3/3) – • See page 21 for IC Block Diagrams.

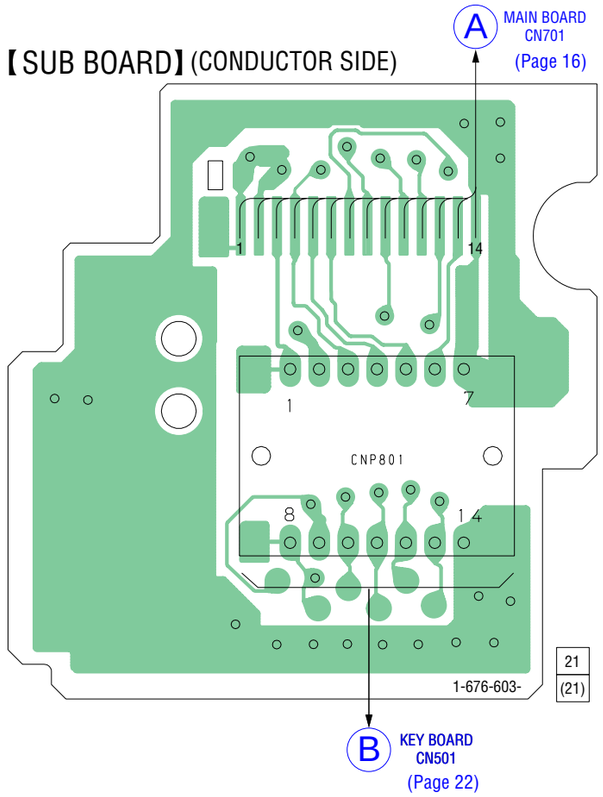


6-6. PRINTED WIRING BOARD – SUB Board –

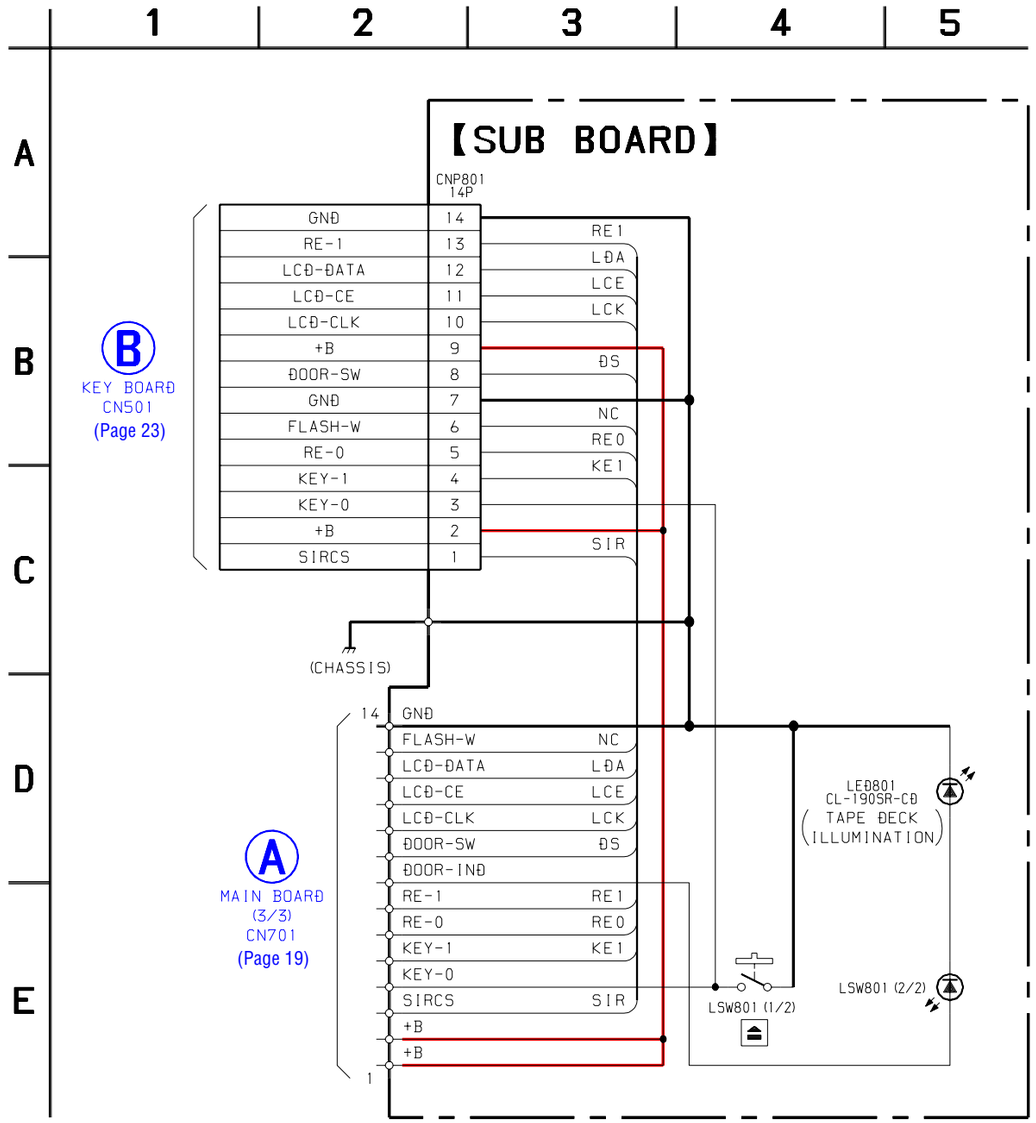
【SUB BOARD】(COMPONENT SIDE)



【SUB BOARD】(CONDUCTOR SIDE)



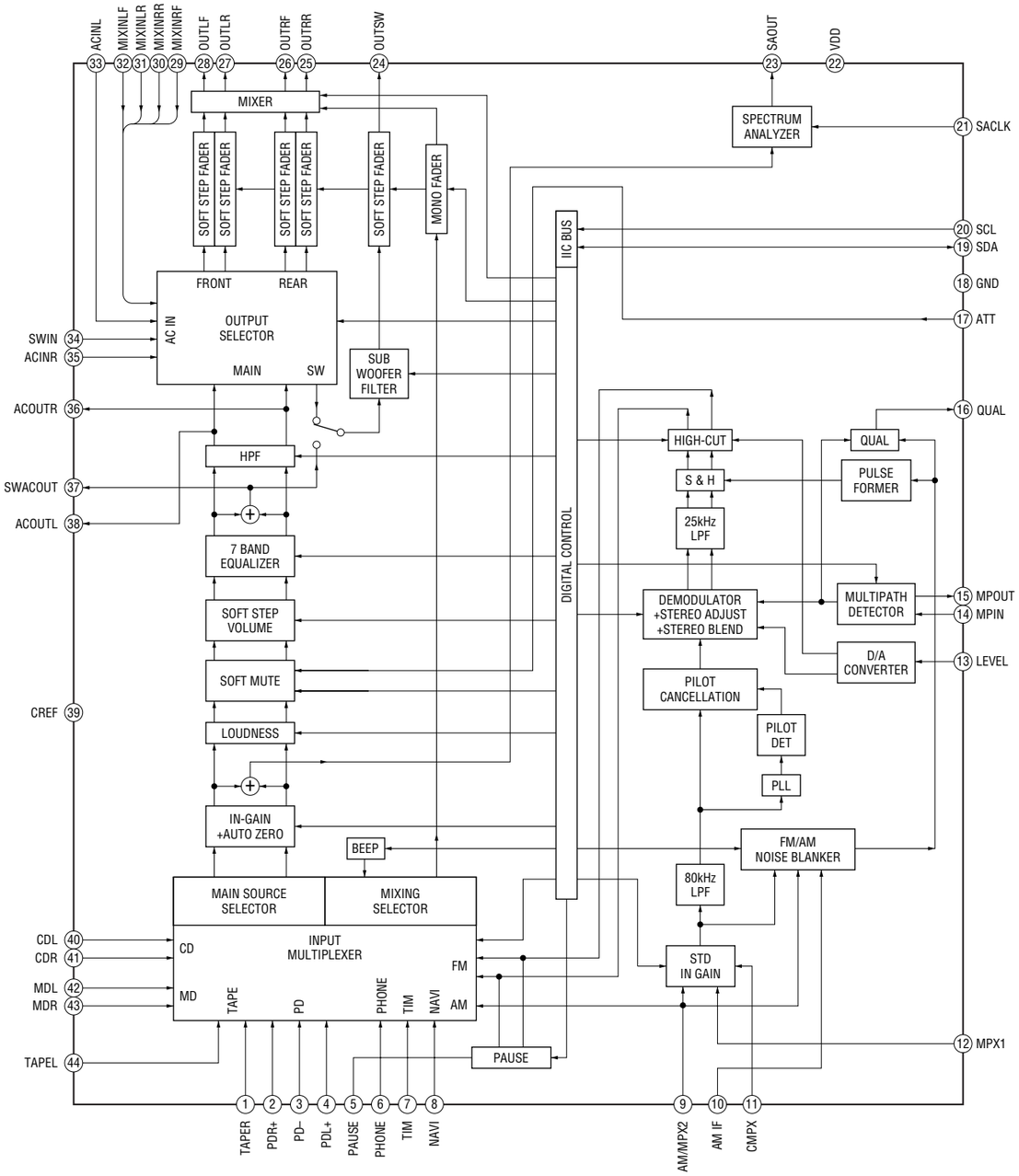
6-7. SCHEMATIC DIAGRAM – SUB Board –



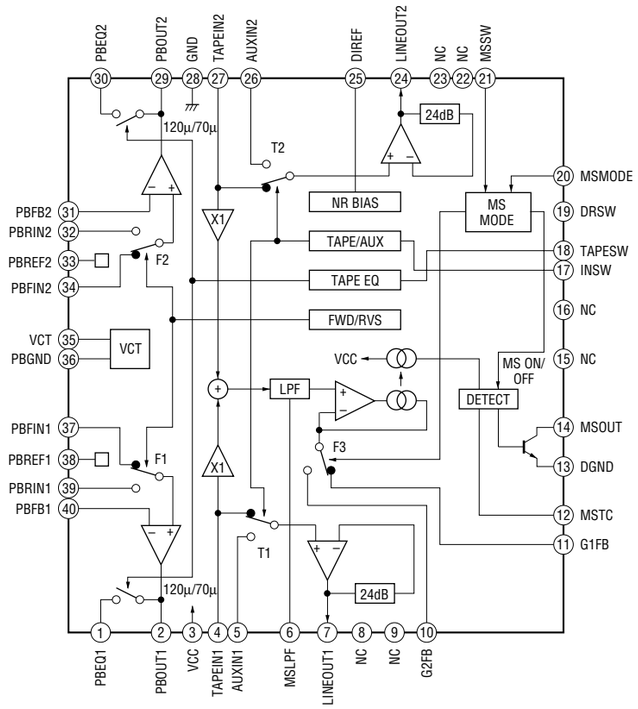
- **IC Block Diagrams**

– MAIN Board –

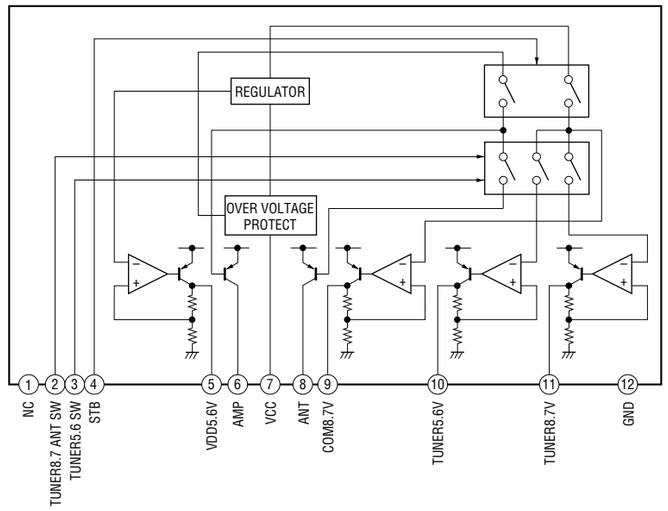
IC331 TDA7406T



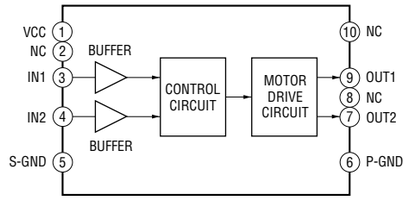
IC301 CXA2509AQ-T4



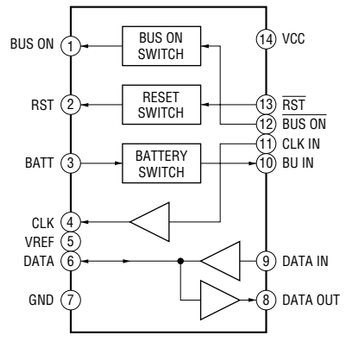
IC611 BA4908-V3



IC351 LB1930M-TLM

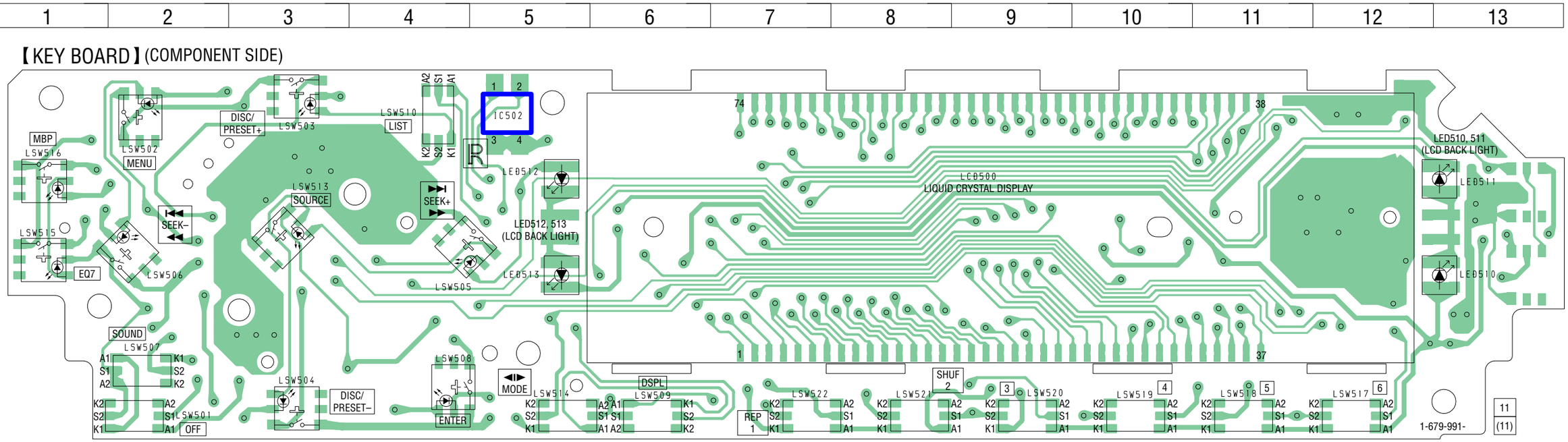


IC581 BA8270F-E2

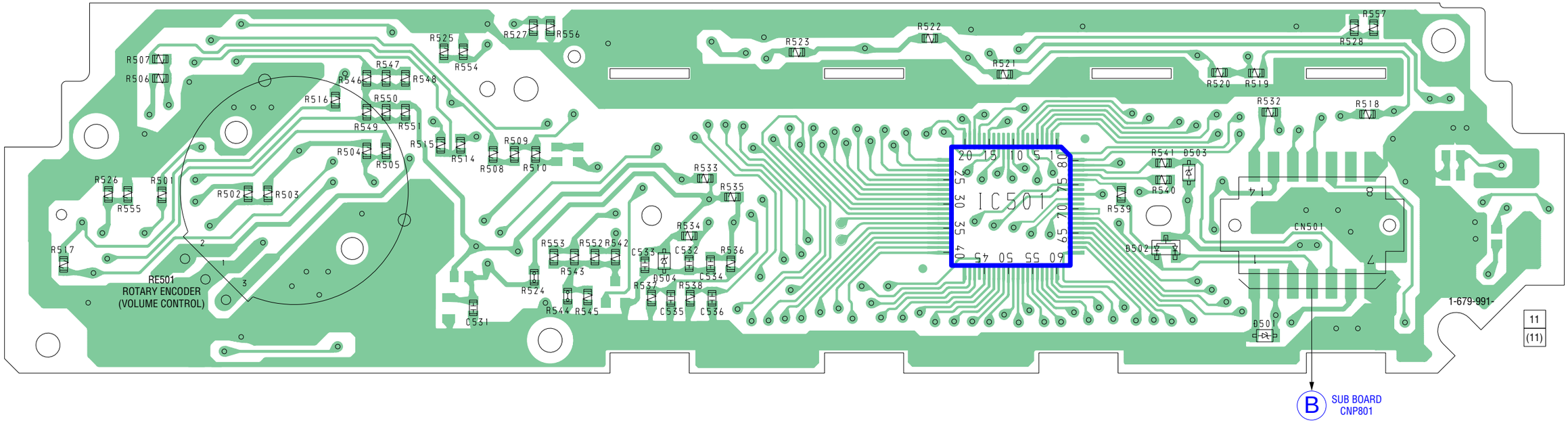


6-8. PRINTED WIRING BOARD – KEY Board –

【KEY BOARD】(COMPONENT SIDE)



【KEY BOARD】(CONDUCTOR SIDE)

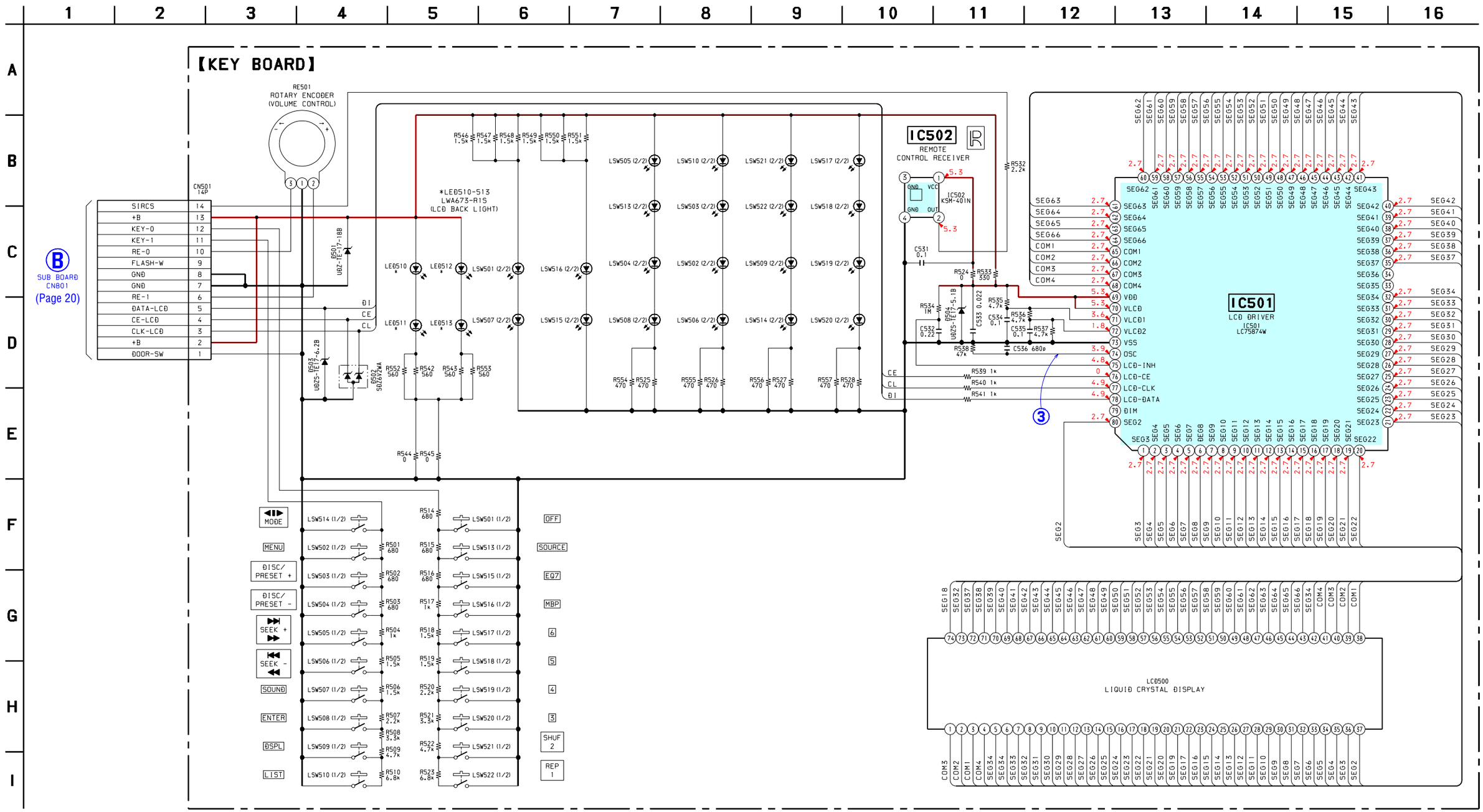


(Page 20)

- **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D501	H-11	IC502	A-5
D502	G-10		
D503	F-10	LED510	C-13
D504	G-6	LED511	B-13
		LED512	B-5
IC501	G-9	LED513	C-5

6-9. SCHEMATIC DIAGRAM – KEY Board – • See page 15 for Waveform.



6-10. IC PIN FUNCTION DESCRIPTION

• MAIN BOARD IC501 MN101C49KTE (SYSTEM CONTROLLER)

Pin No.	Pin Name	I/O	Description
1	VREF–	I	Reference voltage (0V) input terminal (for A/D converter)
2	VSM	I	FM and AM signal meter voltage detection signal input from the FM/AM tuner unit (TU1) (A/D input)
3	NIL	I	Not used (fixed at “L”)
4	KEYIN1	I	Key input terminal (A/D input) LSW502 to LSW510, LSW514 (MENU, DISC/PRESET+, DISC/PRESET–, ▶▶I SEEK+ ▶▶, I◀◀ SEEK– ◀◀, SOUND, ENTER, DSPL, LIST, MODE ◀II▶ keys input)
5	KEYIN0	I	Key input terminal (A/D input) LSW501, LSW513, LSW515 to LSW522 (OFF, SOURCE, EQ7, MBP, 6, 5, 4, 3, SHUF 2, REP 1 keys input)
6	RCIN0	I	Rotary remote commander key input terminal (A/D input)
7, 8	NIL	I	Not used (fixed at “L”)
9	DSTSEL	I	Destination setting terminal (A/D input) Fixed at center voltage in this set
10	VREF+	I	Reference voltage (+5V) input terminal (for A/D converter)
11	VDD	—	Power supply terminal (+5V)
12	OSCOUT	O	Main system clock output terminal (18.432 MHz)
13	OSCIN	I	Main system clock input terminal (18.432 MHz)
14	VSS	—	Ground terminal
15	XI	I	Sub system clock input terminal (32.768 kHz)
16	XO	O	Sub system clock output terminal (32.768 kHz)
17	MMOD	I	Selection signal of memory mode input terminal “L”:single chip mode (fixed at “L”)
18	LCDSO	O	Serial data output to the liquid crystal display driver (IC501)
19	LCDCE	O	Chip enable signal output to the liquid crystal display driver (IC501) “H” active
20	LCDCKO	O	Serial data transfer clock signal output to the liquid crystal display driver (IC501)
21 to 23	NCO	O	Not used (open)
24	$\overline{\text{SYSRST}}$	O	Reset signal output to the SONY bus interface (IC581) “L”: reset
25	$\overline{\text{BUSON}}$	O	Bus on/off control signal output to the SONY bus interface (IC581) “L”: bus on
26	KEYACK	I	Input of acknowledge signal for the key entry Acknowledge signal is input to accept function and eject keys in the power off status On at input of “H”
27	NIL	I	Not used (fixed at “L”)
28	BUIN	I	Battery detection signal input from the SONY bus interface (IC581) “L” is input at low voltage
29	SIRCS	I	SIRCS remote control signal input terminal Not used (open)
30, 31	NIL	I	Not used (fixed at “L”)
32	NIH	I	Not used (fixed at “H”)
33	$\overline{\text{RESET}}$	I	System reset signal input from the reset signal generator (IC551) and reset switch (S551) “L”: reset “L” is input for several 100 msec after power on, then it changes to “H”
34	TUNON	O	Tuner system power supply on/off control signal output “H”: tuner power on
35	BEEP	O	Beep sound drive signal output to the power amplifier (IC751)
36	PW_ON	O	Main system power supply on/off control signal output “H”: power on
37	NCO	O	Not used (open)
38	$\overline{\text{ACCIN}}$	I	Accessory detection signal input “L”: accessory on
39	NCO	O	Not used (open)
40	TELATT	I	Telephone attenuate signal input At input of “H”, the signal is attenuated by –20 dB
41	NIH	I	Not used (fixed at “H”)
42	BUSSO	O	Serial data output to the SONY bus interface (IC581)
43	BUSSI	I	Serial data input from the SONY bus interface (IC581)

Pin No.	Pin Name	I/O	Description
44	BUSCKO	O	Serial data transfer clock signal output to the SONY bus interface (IC581)
45	IIC SIO	I/O	Two-way data IIC bus with the FM/AM tuner unit (TU1), and electrical volume (IC331)
46	NCO	O	Not used (open)
47	IIC CKO	O	IIC bus clock signal output to the FM/AM tuner unit (TU1), and electrical volume (IC331)
48	AMPON	O	Standby on/off control signal output to the power amplifier (IC751) “L”: standby mode, “H”: amplifier on
49	$\overline{\text{AMPATT}}$	O	Muting on/off control signal output to the power amplifier (IC751) “L”: muting on
50	ATT	O	Audio line muting on/off control signal output “H”: muting on
51	NCO	O	Not used (open)
52	$\overline{\text{AMSON}}$	O	Tape auto music sensor control signal output to the CXA2509AQ (IC301) “L”: auto music sensor on
53	F/ROUT	O	Forward/reverse control signal output to the CXA2509AQ (IC301) “L”: reverse direction, “H”: forward direction
54	MTLON	O	METAL control in/out terminal At initial mode: valid/invalid selection input of METAL function (valid at “L” input) At normal mode: METAL on/off control signal output to the CXA2509AQ (IC301) (METAL on at “H” output)
55	TAPATT	O	Tape muting on/off control signal output to the CXA2509AQ (IC301) “H”: muting on Active at ATA, FF/REW mode
56	NCO	I/O	Dolby control in/out terminal Not used (pull down)
57	AMSIN	I	Whether a music is present or not from CXA2509AQ (IC301) is detected at auto music sensor “L”: music is present, “H”: music is not present
58	4VPRE	I	4V PREOUT setting terminal “L”: 4V PREOUT on Fixed at “H” in this set
59	$\overline{\text{VOLATT}}$	O	Pre amplifier muting on/off control signal output to the electrical volume (IC331) “L”: muting on
60 to 64	NCO	O	Not used (open)
65	FLASH_W	I	Internal flash memory data write mode detection signal input terminal “L”: data write mode Not used (open)
66	$\overline{\text{TESTIN}}$	I	Setting terminal for the test mode “L”: test mode, normally fixed at “H”
67	RCIN1	I	Rotary remote commander shift key input terminal “L”: shift key on
68 to 73	NCO	O	Not used (open)
74	EEP_SIO	I/O	Two-way data bus for tuner EEPROM with the FM/AM tuner unit (TU1)
75	EEP_CKO	I/O	Two-way bus clock signal for tuner EEPROM with the FM/AM tuner unit (TU1)
76	COLSEL	I	Setting terminal for the illumination color “L”: amber, “H”: green Fixed at “L” in this set
77	SWSHIFT	O	VCO shift control signal output to the FM/AM tuner unit (TU1) for SW “L”: EXCEPT SW, “H”: SW
78	$\overline{\text{DOORSW}}$	I	Front panel open/close detection signal input “L” is input when the front panel is closed
79	DOORIND	O	LED drive signal output of the MD disc slot illumination and ⏏ indicator (LED810, LSW810) “H”: LED on “H” is output to turn on the LED when front panel is opened
80, 81	RE IN1, RE IN0	I	Dial pulse input of the rotary encoder (RE501) (for VOLUME control)
82	XKEYON	O	A/D converter power control signal output terminal When the KEYACK (pin ㉖) that controls reference voltage power for key A/D conversion input is active, “L” is output from this terminal to enable the input
83	ILLON	O	Power on/off control signal output of the illumination LED and liquid crystal display driver (IC501) “H”: power on
84	REL	I	Rotation detection signal input from supply reel sensor and take-up reel sensor on the mechanism deck

Pin No.	Pin Name	I/O	Description
85	POS3	I	Tape position (EJECT/FF/REW/REV/ FWD mode) detect input from the tape operation switch on the deck mechanism POS3: "L": REV and EJECT mode, "H": others mode POS2: "L": REW mode, "H": others mode POS0: "L": EJECT mode, "H": others mode POS1: "L": PLAY and FF in FWD mode, and REW in REV mode, "H": others mode
86	POS2	I	
87	POS0	I	
88	POS1	I	
89	LMLOD	O	Motor drive signal output to the loading motor drive (IC351) "H" active (For the loading direction and forward side operation) *1
90	LMEJ	O	Motor drive signal output to the loading motor drive (IC351) "H" active (For the eject direction and reverse side operation) *1
91	TAPEON	O	Power on/off control signal output of the loading motor drive (IC351) and capstan/reel motor (M901) "H": motor on
92	CMON	O	Capstan/reel motor (M901) drive signal output terminal "H": motor on
93	$\overline{\text{NOSESW}}$	I	Front panel block remove/attach detection signal input "L": front panel is attached, "H": front panel is removed
94	NCO	O	Not used (open)
95	DAVSS	—	Ground terminal (for D/A converter)
96 to 99	NCO	O	Not used (open)
100	DAVDD	—	Power supply terminal (+5V) (for D/A converter)

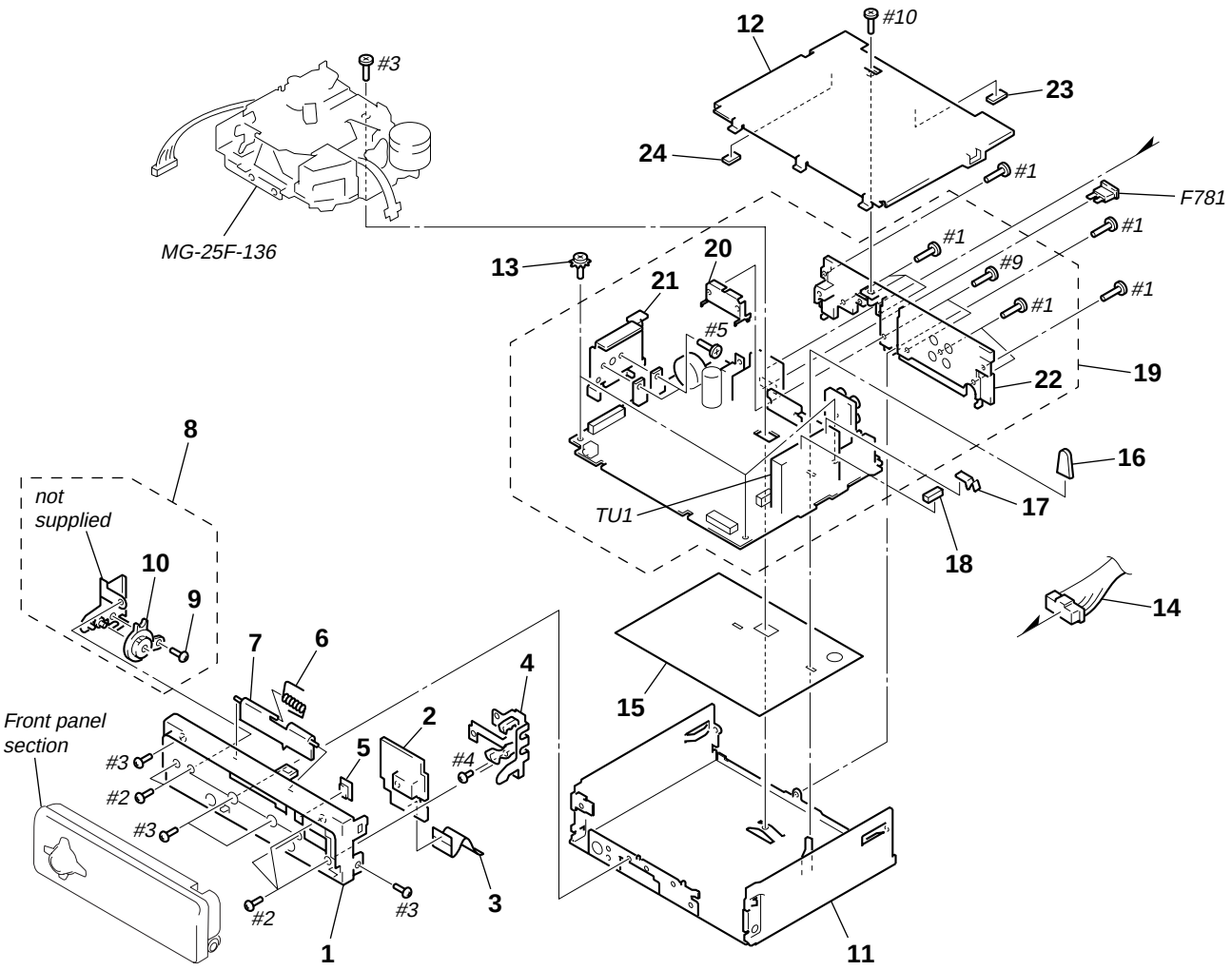
*1 Loading motor control

Mode / Terminal	STOP	LOADING/ FORWARD	EJECT/ REVERSE	BRAKE
LMLOD (pin ⑧⑨)	"L"	"H"	"L"	"H"
LMEJ (pin ⑨⓪)	"L"	"L"	"H"	"H"

SECTION 7
EXPLODED VIEWS

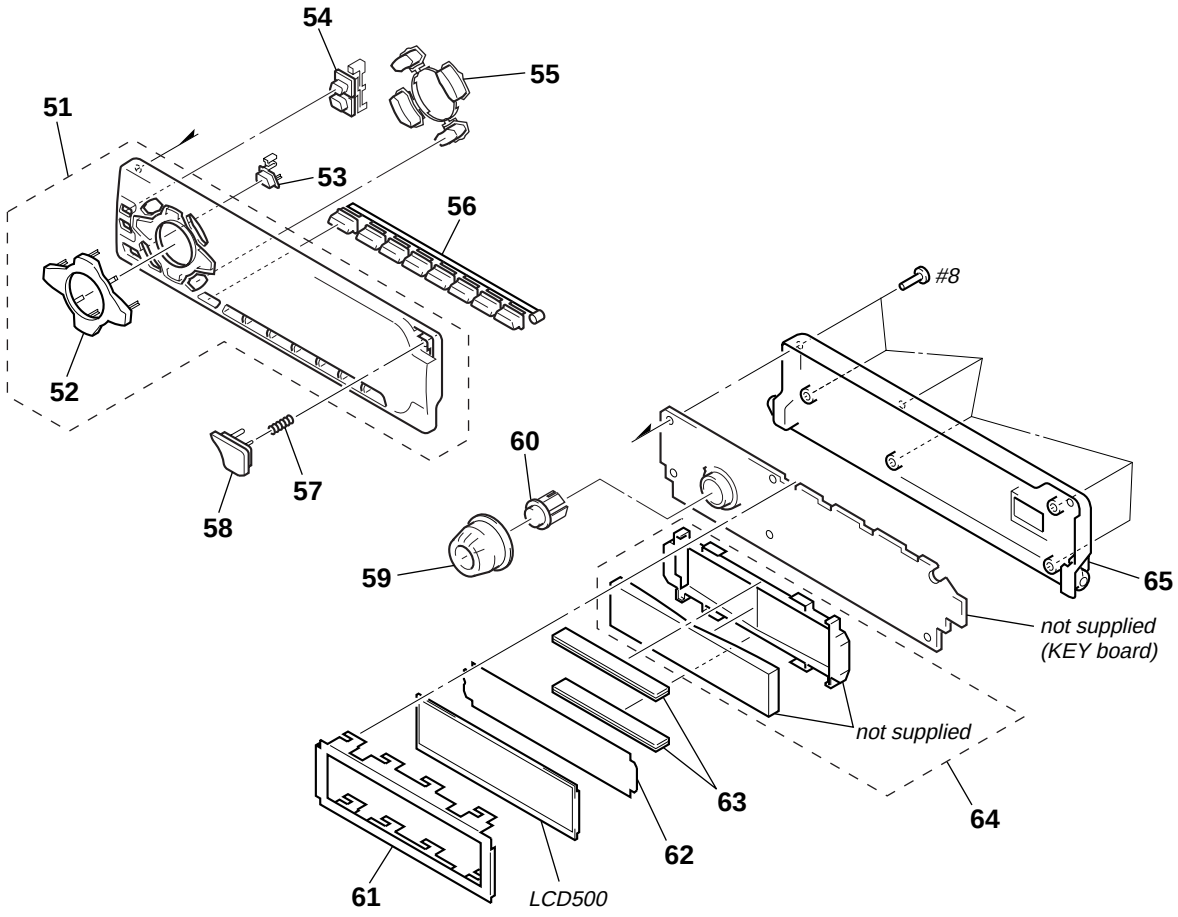
NOTE:
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of the electrical parts list.

7-1. GENERAL SECTION



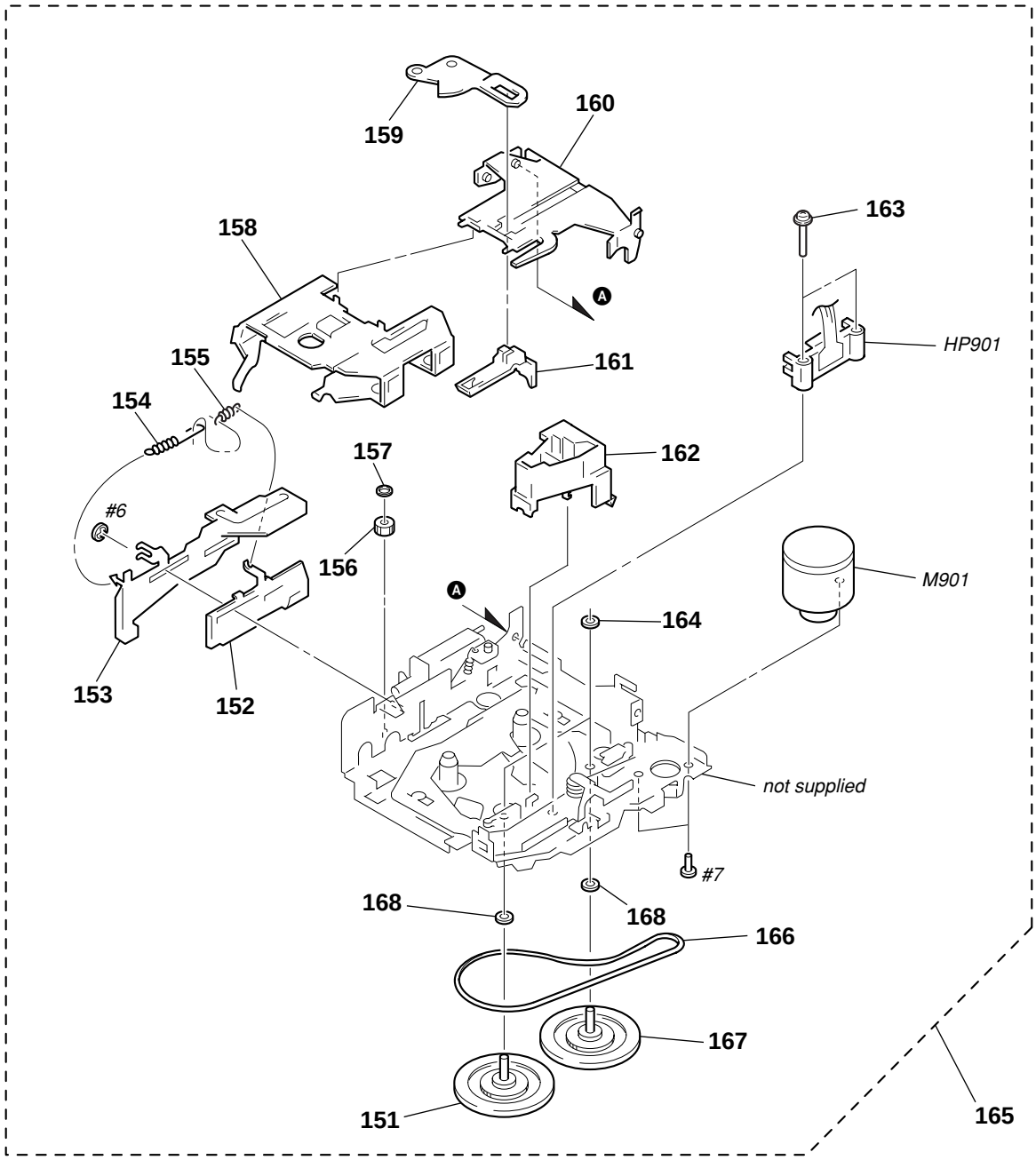
Ref. No.	Part No.	Description	Remark
1	X-3378-397-1	PANEL ASSY, SUB	
* 2	1-676-603-21	SUB BOARD	
3	1-792-195-11	CABLE, FLEXIBLE FLAT (14 CORE)	
4	X-3377-621-1	LOCK ASSY	
5	3-040-990-01	BUTTON (EJECT) (⏏)	
6	3-935-003-01	SPRING, TORSION	
7	3-027-437-11	DOOR, CASSETTE	
8	X-3376-699-1	GEAR ASSY	
9	3-713-786-51	SCREW +P 2X3	
10	3-030-909-01	DAMPER, OIL	
* 11	3-040-994-01	CHASSIS	
* 12	3-040-995-01	COVER	
13	3-376-464-11	SCREW (+PTT 2.6X6), GROUND POINT	
14	1-776-206-31	CORD (WITH CONNECTOR) (POWER)	
* 15	3-045-828-01	INSULATED PLATE	
16	3-012-859-01	CAP (25), RUBBER	
* 17	3-045-878-01	PLATE (TU), GROUND	
* 18	3-045-877-01	CUSHION (TU)	
* 19	A-3326-827-A	MAIN BOARD, COMPLETE (CA620X)	
* 19	A-3326-828-A	MAIN BOARD, COMPLETE (CA600X)	
* 20	3-040-998-01	BRACKET (IC)	
* 21	3-041-262-01	HEAT SINK (REG/XR)	
* 22	3-040-996-11	HEAT SINK (2P)	
* 23	3-046-991-01	SPACER (COVER R)	
* 24	3-046-990-01	SPACER (COVER L)	
F781	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) (10A)	
TU1	A-3282-061-A	TUNER UNIT (TUX-020) (CA600X)	
TU1	A-3220-812-A	TUNER UNIT (TUX-020) (CA620X)	

7-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	X-3380-016-1	PANEL SUB ASSY (CA600X)	
51	X-3380-017-1	PANEL SUB ASSY (CA620X)	
52	3-224-293-11	BUTTON (CROSS) (DISC/PRESET+. ▶▶I SEEK + ▶▶. DISC/PRESET-. I◀◀ SEEK - ◀◀)	
53	3-224-298-01	BUTTON (OFF)	
54	3-224-296-01	BUTTON (EQ) (MBP. EQ7)	
55	3-224-297-01	BUTTON (MANU) (MENU. LIST. ENTER. SOUND)	
56	3-224-299-01	BUTTON (1-6) (MODE. DSPL. 1. 2. 3. 4. 5. 6)	
57	3-038-318-01	SPRING (RELEASE)	
58	3-224-300-01	BUTTON (OPEN) (CA600X)	
58	3-224-300-11	BUTTON (OPEN) (CA620X)	
59	3-224-292-01	KNOB (VOL) (CA600X)	
59	3-224-292-11	KNOB (VOL) (CA620X)	
60	3-224-295-01	BUTTON (SOURCE)	
* 61	3-224-306-01	PLATE (LCD), GROUND	
* 62	3-224-307-01	SHEET (DIFFUSION)	
63	1-694-787-11	CONDUCTIVE BOARD, CONNECTION	
* 64	X-3379-981-1	HOLDER (LCD) ASSY	
65	X-3379-982-1	PANEL ASSY, FRONT BACK	
LCD500	1-804-294-21	DISPLAY PANEL, LIQUID CRYSTAL	

7-3. MECHANISM DECK SECTION (MG-25F-136)



Ref. No.	Part No.	Description	Remark
151	A-3291-667-A	CLUTCH (FR) ASSY	
* 152	3-019-130-01	LEVER (LDG-A)	
* 153	3-019-131-01	LEVER (LDG-B)	
154	3-020-539-01	SPRING (LD-1), TENSION	
155	3-020-540-01	SPRING (LD-2), TENSION	
156	3-020-542-01	GEAR (LOADING FT)	
157	3-341-753-11	WASHER, POLYETHYLENE	
158	3-020-533-01	HOUSING	
* 159	3-020-532-01	ARM (SUCTION)	
160	3-020-534-01	HANGER	

Ref. No.	Part No.	Description	Remark
161	3-933-346-01	CATCHER	
162	3-933-344-01	GUIDE (C)	
163	3-014-798-01	SCREW (HEAD), SPECIAL	
164	3-364-151-01	WASHER	
165	A-3220-610-A	MECHANISM DECK ASSY	
166	3-017-302-01	BELT (25)	
167	3-026-636-01	FLYWHEEL (F)	
168	3-701-437-21	WASHER	
HP901	1-500-157-21	HEAD, MAGNETIC (PLAYBACK)	
M901	A-3291-665-A	MOTOR ASSY, MAIN (CAPSTAN/REEL)	

SECTION 8
ELECTRICAL PARTS LIST

KEY

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service.
  Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA. . : µA. . uPA. . : µPA. .
  uPB. . : µPB. . uPC. . : µPC. .
  uPD. . : µPD. .
- CAPACITORS
  uF: µF
- COILS
  uH: µH

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
		KEY BOARD			
		**********			
	1-694-787-11	CONDUCTIVE BOARD, CONNECTION			
*	3-224-306-01	PLATE (LCD), GROUND			
*	3-224-307-01	SHEET (DIFFUSION)			
		< CAPACITOR >			
C531	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C532	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C533	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C534	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C535	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C536	1-162-963-11	CERAMIC CHIP	680PF	10%	50V
		< CONNECTOR >			
CN501	1-794-065-12	PLUG, CONNECTOR 14P			
		< DIODE >			
D501	8-719-056-93	DIODE UDZ-TE-17-18B			
D502	8-719-068-68	DIODE SDZ6V2WA			
D503	8-719-069-56	DIODE UDZS-TE17-6.2B			
D504	8-719-069-54	DIODE UDZS-TE17-5.1B			
		< IC >			
IC501	8-759-826-21	IC LC75874W			
IC502	8-749-017-35	IC KSM-401N			
		< LIQUID CRYSTAL DISPLAY >			
LCD500	1-804-294-21	DISPLAY PANEL, LIQUID CRYSTAL			
		< LED >			
LED510	8-719-078-19	LED LWA673-R1S2*1 (LCD BACK LIGHT)			
LED511	8-719-078-19	LED LWA673-R1S2*1 (LCD BACK LIGHT)			
LED512	8-719-078-19	LED LWA673-R1S2*1 (LCD BACK LIGHT)			
LED513	8-719-078-19	LED LWA673-R1S2*1 (LCD BACK LIGHT)			
		< SWITCH >			
LSW501	1-771-883-11	SWITCH, TACTILE (WITH LED) (OFF)			
LSW502	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (MENU)			
LSW503	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (DICS/PRESET +)			
LSW504	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (DICS/PRESET –)			
LSW505	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (▶▶I SEEK + ▶▶)			
LSW506	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (I◀◀ SEEK – ◀◀)			
LSW507	1-771-883-11	SWITCH, TACTILE (WITH LED) (SOUND)			
LSW508	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (ENTER)			
LSW509	1-771-883-11	SWITCH, TACTILE (WITH LED) (DSPL)			
LSW510	1-771-883-11	SWITCH, TACTILE (WITH LED) (LIST)			
LSW513	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (SOURCE)			
LSW514	1-771-883-11	SWITCH, TACTILE (WITH LED) (◀II▶ MODE)			
LSW515	1-771-500-21	SWITCH, KEYBOARD (WITH LED) (EQ7)			
LSW516	1-771-500-21	SWITCH, KEYBOARD (WITH LED) (MBP)			
LSW517	1-771-883-11	SWITCH, TACTILE (WITH LED) (6)			
LSW518	1-771-883-11	SWITCH, TACTILE (WITH LED) (5)			
LSW519	1-771-883-11	SWITCH, TACTILE (WITH LED) (4)			
LSW520	1-771-883-11	SWITCH, TACTILE (WITH LED) (3)			
LSW521	1-771-883-11	SWITCH, TACTILE (WITH LED) (SHUF 2)			
LSW522	1-771-883-11	SWITCH, TACTILE (WITH LED) (REP 1)			
		< RESISTOR >			
R501	1-216-819-11	METAL CHIP	680	5%	1/16W
R502	1-216-819-11	METAL CHIP	680	5%	1/16W
R503	1-216-819-11	METAL CHIP	680	5%	1/16W
R504	1-216-821-11	METAL CHIP	1K	5%	1/16W
R505	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R506	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R507	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R508	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R509	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R510	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R514	1-216-819-11	METAL CHIP	680	5%	1/16W
R515	1-216-819-11	METAL CHIP	680	5%	1/16W
R516	1-216-819-11	METAL CHIP	680	5%	1/16W
R517	1-216-821-11	METAL CHIP	1K	5%	1/16W
R518	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R519	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R520	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R521	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R522	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R523	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R524	1-216-864-11	SHORT	0		
R525	1-216-817-11	METAL CHIP	470	5%	1/16W
R526	1-216-817-11	METAL CHIP	470	5%	1/16W
R527	1-216-817-11	METAL CHIP	470	5%	1/16W

KEY MAIN

Ref. No.	Part No.	Description			Remark
R528	1-216-817-11	METAL CHIP	470	5%	1/16W
R532	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R533	1-216-815-11	METAL CHIP	330	5%	1/16W
R534	1-216-857-11	METAL CHIP	1M	5%	1/16W
R535	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R536	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R537	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R538	1-216-841-11	METAL CHIP	47K	5%	1/16W
R539	1-216-821-11	METAL CHIP	1K	5%	1/16W
R540	1-216-821-11	METAL CHIP	1K	5%	1/16W
R541	1-216-821-11	METAL CHIP	1K	5%	1/16W
R542	1-216-818-11	METAL CHIP	560	5%	1/16W
R543	1-216-818-11	METAL CHIP	560	5%	1/16W
R544	1-216-864-11	SHORT	0		
R545	1-216-864-11	SHORT	0		
R546	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R547	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R548	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R549	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R550	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R551	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R552	1-216-818-11	METAL CHIP	560	5%	1/16W
R553	1-216-818-11	METAL CHIP	560	5%	1/16W
R554	1-216-817-11	METAL CHIP	470	5%	1/16W
R555	1-216-817-11	METAL CHIP	470	5%	1/16W
R556	1-216-817-11	METAL CHIP	470	5%	1/16W
R557	1-216-817-11	METAL CHIP	470	5%	1/16W
		< ROTARY ENCODER >			
RE501	1-418-818-21	ENCODER, ROTARY (VOLUME CONTROL)			
**********					
*	A-3326-827-A	MAIN BOARD, COMPLETE (CA620X)			
*	A-3326-828-A	MAIN BOARD, COMPLETE (CA600X)			
		**********			
*	3-040-996-12	HEAT SINK (2P)			
*	3-040-998-01	BRACKET (IC)			
*	3-041-262-01	HEAT SINK (REG/XR)			
	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S			
	7-685-793-09	SCREW +PTT 2.6X8 (S)			
	7-685-795-09	SCREW +PTT 2.6X12 (S)			
		< CAPACITOR >			
C1	1-162-918-11	CERAMIC CHIP	18PF	5%	50V
C2	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3	1-104-664-11	ELECT	47uF	20%	25V
C5	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C6	1-124-589-11	ELECT	47uF	20%	16V
C13	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C21	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C22	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C23	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C24	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C41	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C101	1-162-959-11	CERAMIC CHIP	330PF	5%	50V
C102	1-162-959-11	CERAMIC CHIP	330PF	5%	50V
C103	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V

Ref. No.	Part No.	Description			Remark
C104	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C105	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C106	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C108	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C110	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C112	1-164-816-11	CERAMIC CHIP	220PF	2%	50V
C114	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C115	1-164-816-11	CERAMIC CHIP	220PF	2%	50V
C116	1-164-816-11	CERAMIC CHIP	220PF	2%	50V
C141	1-126-160-11	ELECT	1uF	20%	50V
C142	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C174	1-124-233-11	ELECT	10uF	20%	16V
C176	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C177	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C184	1-124-233-11	ELECT	10uF	20%	16V
C185	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C186	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C187	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C201	1-162-959-11	CERAMIC CHIP	330PF	5%	50V
C202	1-162-959-11	CERAMIC CHIP	330PF	5%	50V
C203	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C204	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C205	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C206	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C208	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C210	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C212	1-164-816-11	CERAMIC CHIP	220PF	2%	50V
C214	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C215	1-164-816-11	CERAMIC CHIP	220PF	2%	50V
C216	1-164-816-11	CERAMIC CHIP	220PF	2%	50V
C241	1-126-160-11	ELECT	1uF	20%	50V
C242	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C274	1-124-233-11	ELECT	10uF	20%	16V
C276	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C277	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C284	1-124-233-11	ELECT	10uF	20%	16V
C285	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C286	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C287	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C301	1-124-234-00	ELECT	22uF	20%	16V
C302	1-131-353-00	TANTALUM	10uF	10%	35V
C303	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C304	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C305	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C306	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C307	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C332	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C333	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C335	1-124-233-11	ELECT	10uF	20%	16V
C336	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C337	1-124-589-11	ELECT	47uF	20%	16V
C340	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C351	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C352	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C353	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C354	1-124-233-11	ELECT	10uF	20%	16V
C355	1-124-234-00	ELECT	22uF	20%	16V

MAIN

Ref. No.	Part No.	Description			Remark
C356	1-126-934-11	ELECT	220uF	20%	16V
C357	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C358	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C501	1-124-589-11	ELECT	47uF	20%	16V
C502	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C503	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C504	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C505	1-162-918-11	CERAMIC CHIP	18PF	5%	50V
C506	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C508	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C509	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C511	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C512	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C551	1-125-710-11	DOUBLE LAYER	0.1F		5.5V
C552	1-104-658-11	ELECT	100uF	20%	10V
C553	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C557	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C571	1-126-160-11	ELECT	1uF	20%	50V
C581	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C585	1-124-589-11	ELECT	47uF	20%	16V
C611	1-126-157-11	ELECT	10uF	20%	16V
C615	1-126-157-11	ELECT	10uF	20%	16V
C616	1-126-157-11	ELECT	10uF	20%	16V
C617	1-126-157-11	ELECT	10uF	20%	16V
C618	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C622	1-124-589-11	ELECT	47uF	20%	16V
C701	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C702	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C703	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C704	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C705	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C706	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C707	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C708	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C709	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C710	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C711	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C712	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C751	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C752	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C754	1-124-233-11	ELECT	10uF	20%	16V
C755	1-124-233-11	ELECT	10uF	20%	16V
C781	1-107-885-31	ELECT	3300uF	20%	16V
C782	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C783	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C784	1-165-319-11	CERAMIC CHIP	0.1uF		50V
		< CONNECTOR >			
CN301	1-785-694-11	CONNECTOR, FFC/FPC 7P			
* CN351	1-506-995-11	PIN, CONNECTOR (PC BOARD) 13P			
CN581	1-580-907-31	PLUG, CONNECTOR (BUS CONTROL IN)			
CN701	1-784-456-11	CONNECTOR, FFC/FPC 14P			
CN781	1-774-701-11	PIN, CONNECTOR 16P			
		< JACK >			
CNJ151	1-774-699-12	JACK, PIN 4P (AUDIO OUT REAR, BUS AUDIO IN)			

Ref. No.	Part No.	Description	Remark
		< DIODE >	
D1	8-719-056-65	DIODE 1SS372-TE85L	
D351	8-719-422-97	DIODE MA8091-M	
D352	8-719-970-02	DIODE 1SR139-400	
D501	8-719-073-01	DIODE MA111- (K8).S0	
D502	8-719-977-12	DIODE DTZ6.8B	
D552	8-719-067-56	DIODE MA112-TX	
D553	8-719-073-01	DIODE MA111- (K8).S0	
D581	8-719-057-80	DIODE MA8180-M-TX	
D582	8-719-422-64	DIODE MA8062-M	
D584	8-719-057-80	DIODE MA8180-M-TX	
D585	8-719-072-70	DIODE MA2ZD14001S0	
D586	8-719-057-80	DIODE MA8180-M-TX	
D610	8-719-970-02	DIODE 1SR139-400	
D611	8-719-970-02	DIODE 1SR139-400	
D614	8-719-970-02	DIODE 1SR139-400	
D622	8-719-073-01	DIODE MA111- (K8).S0	
D701	8-719-977-12	DIODE DTZ6.8B	
D702	8-719-977-12	DIODE DTZ6.8B	
D703	8-719-977-12	DIODE DTZ6.8B	
D704	8-719-977-12	DIODE DTZ6.8B	
D705	8-719-977-12	DIODE DTZ6.8B	
D706	8-719-057-80	DIODE MA8180-M-TX	
D707	8-719-977-12	DIODE DTZ6.8B	
D708	8-719-977-12	DIODE DTZ6.8B	
D709	8-719-977-12	DIODE DTZ6.8B	
D710	8-719-977-12	DIODE DTZ6.8B	
D711	8-719-977-12	DIODE DTZ6.8B	
D712	8-719-977-12	DIODE DTZ6.8B	
D721	8-719-079-42	DIODE 1ZB22 (TPA3)	
D722	8-719-079-55	DIODE PTZ-TE25-22	
D723	8-719-079-42	DIODE 1ZB22 (TPA3)	
D724	8-719-079-55	DIODE PTZ-TE25-22	
D731	8-719-079-55	DIODE PTZ-TE25-22	
D732	8-719-079-55	DIODE PTZ-TE25-22	
D733	8-719-079-55	DIODE PTZ-TE25-22	
D734	8-719-079-42	DIODE 1ZB22 (TPA3)	
D781	8-719-049-38	DIODE 1N5404TU	
		< IC >	
IC301	8-752-079-78	IC CXA2509AQ-T4	
IC331	8-759-827-13	IC TDA7406T	
IC351	8-759-527-33	IC LB1930M-TLM	
IC501	8-759-828-84	IC MN101C49KTE	
IC551	8-759-682-69	IC XC61CN4302MR	
IC581	8-759-449-89	IC BA8270F-E2	
IC611	8-759-661-47	IC BA4908-V3	
IC751	8-759-827-14	IC TA8268AH	
		< JACK >	
J1	1-815-185-11	JACK (ANT) (FM/AM ANTENNA IN)	
J561	1-566-822-41	JACK (REMOTE IN)	
		< SHORT >	
JC296	1-216-295-11	SHORT 0	
JC297	1-216-296-11	SHORT 0	
JC299	1-216-295-11	SHORT 0	

MAIN

Ref. No.	Part No.	Description			Remark
JC301	1-216-295-11	SHORT	0		
JC302	1-216-295-11	SHORT	0		
JC303	1-216-295-11	SHORT	0		
JC304	1-216-295-11	SHORT	0		
JC332	1-216-296-11	SHORT	0		
JC333	1-216-296-11	SHORT	0		
JC502	1-216-295-11	SHORT	0		
JC503	1-216-295-11	SHORT	0		
JC504	1-216-296-11	SHORT	0		
JC509	1-216-295-11	SHORT	0		
JC551	1-216-295-11	SHORT	0		
JC582	1-216-295-11	SHORT	0		
JC601	1-216-295-11	SHORT	0		
JC602	1-216-296-11	SHORT	0		
JC621	1-216-295-11	SHORT	0		
JC751	1-216-296-11	SHORT	0		
JC752	1-216-296-11	SHORT	0		
JC753	1-216-296-11	SHORT	0		
		< COIL >			
L501	1-410-750-41	INDUCTOR	0.47uH		
L781	1-419-476-11	INDUCTOR	250uH		
		< TRANSISTOR >			
Q171	8-729-920-21	TRANSISTOR	DTC314TKH04		
Q181	8-729-920-21	TRANSISTOR	DTC314TKH04		
Q271	8-729-920-21	TRANSISTOR	DTC314TKH04		
Q281	8-729-920-21	TRANSISTOR	DTC314TKH04		
Q351	8-729-015-11	TRANSISTOR	2SD1802FAST-TL		
Q352	8-729-047-76	TRANSISTOR	FMC2A-T148		
Q353	8-729-900-53	TRANSISTOR	DTC114EK		
Q354	8-729-106-60	TRANSISTOR	2SB1115A-YQ		
Q551	8-729-027-23	TRANSISTOR	DTA114EKA-T146		
Q571	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q581	8-729-900-53	TRANSISTOR	DTC114EK		
Q601	8-729-106-60	TRANSISTOR	2SB1115A-YQ		
Q602	8-729-900-53	TRANSISTOR	DTC114EK		
Q621	8-729-027-23	TRANSISTOR	DTA114EKA-T146		
Q622	8-729-027-59	TRANSISTOR	DTC144EKA-T146		
Q631	8-729-047-76	TRANSISTOR	FMC2A-T148		
		< RESISTOR >			
R1	1-216-809-11	METAL CHIP	100	5%	1/16W
R2	1-216-809-11	METAL CHIP	100	5%	1/16W
R12	1-216-841-11	METAL CHIP	47K	5%	1/16W
R13	1-216-845-11	METAL CHIP	100K	5%	1/16W
R21	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R101	1-216-817-11	METAL CHIP	470	5%	1/16W
R102	1-216-851-11	METAL CHIP	330K	5%	1/16W
R103	1-216-835-11	METAL CHIP	15K	5%	1/16W
R104	1-216-836-11	METAL CHIP	18K	5%	1/16W
R141	1-216-833-11	METAL CHIP	10K	5%	1/16W
R142	1-216-821-11	METAL CHIP	1K	5%	1/16W
R170	1-216-295-11	SHORT	0		
R174	1-247-807-31	CARBON	100	5%	1/4W
R175	1-216-841-11	METAL CHIP	47K	5%	1/16W
R176	1-216-295-11	SHORT	0		

Ref. No.	Part No.	Description			Remark
R177	1-216-295-11	SHORT	0		
R179	1-216-809-11	METAL CHIP	100	5%	1/16W
R180	1-216-295-11	SHORT	0		
R184	1-247-807-31	CARBON	100	5%	1/4W
R185	1-216-841-11	METAL CHIP	47K	5%	1/16W
R186	1-216-295-11	SHORT	0		
R187	1-216-295-11	SHORT	0		
R189	1-216-809-11	METAL CHIP	100	5%	1/16W
R201	1-216-817-11	METAL CHIP	470	5%	1/16W
R202	1-216-851-11	METAL CHIP	330K	5%	1/16W
R203	1-216-835-11	METAL CHIP	15K	5%	1/16W
R204	1-216-836-11	METAL CHIP	18K	5%	1/16W
R241	1-216-833-11	METAL CHIP	10K	5%	1/16W
R242	1-216-821-11	METAL CHIP	1K	5%	1/16W
R270	1-216-295-11	SHORT	0		
R274	1-247-807-31	CARBON	100	5%	1/4W
R275	1-216-841-11	METAL CHIP	47K	5%	1/16W
R276	1-216-295-11	SHORT	0		
R277	1-216-295-11	SHORT	0		
R279	1-216-809-11	METAL CHIP	100	5%	1/16W
R280	1-216-295-11	SHORT	0		
R284	1-247-807-31	CARBON	100	5%	1/4W
R285	1-216-841-11	METAL CHIP	47K	5%	1/16W
R286	1-216-295-11	SHORT	0		
R287	1-216-295-11	SHORT	0		
R289	1-216-809-11	METAL CHIP	100	5%	1/16W
R301	1-208-812-11	RES-CHIP	18K	2%	1/10W
R302	1-216-845-11	METAL CHIP	100K	5%	1/16W
R303	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R304	1-216-835-11	METAL CHIP	15K	5%	1/16W
R305	1-249-393-11	CARBON	10	5%	1/4W
R306	1-216-849-11	METAL CHIP	220K	5%	1/16W
R331	1-216-797-11	METAL CHIP	10	5%	1/16W
R332	1-216-841-11	METAL CHIP	47K	5%	1/16W
R333	1-216-821-11	METAL CHIP	1K	5%	1/16W
R334	1-216-821-11	METAL CHIP	1K	5%	1/16W
R351	1-216-821-11	METAL CHIP	1K	5%	1/16W
R352	1-249-383-11	CARBON	1.5	5%	1/6W
R353	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R354	1-216-833-11	METAL CHIP	10K	5%	1/16W
R503	1-216-837-11	METAL CHIP	22K	5%	1/16W
R507	1-216-809-11	METAL CHIP	100	5%	1/16W
R508	1-216-809-11	METAL CHIP	100	5%	1/16W
R509	1-216-809-11	METAL CHIP	100	5%	1/16W
R510	1-216-809-11	METAL CHIP	100	5%	1/16W
R511	1-216-833-11	METAL CHIP	10K	5%	1/16W
R512	1-216-845-11	METAL CHIP	100K	5%	1/16W
R513	1-216-833-11	METAL CHIP	10K	5%	1/16W
R514	1-216-809-11	METAL CHIP	100	5%	1/16W
R516	1-216-845-11	METAL CHIP	100K	5%	1/16W
R517	1-216-849-11	METAL CHIP	220K	5%	1/16W
R518	1-216-845-11	METAL CHIP	100K	5%	1/16W
R520	1-216-821-11	METAL CHIP	1K	5%	1/16W
R521	1-216-821-11	METAL CHIP	1K	5%	1/16W
R522	1-216-821-11	METAL CHIP	1K	5%	1/16W
R523	1-216-821-11	METAL CHIP	1K	5%	1/16W
R525	1-216-845-11	METAL CHIP	100K	5%	1/16W

MAIN **SUB**

Ref. No.	Part No.	Description			Remark
R526	1-216-845-11	METAL CHIP	100K	5%	1/16W
R527	1-216-845-11	METAL CHIP	100K	5%	1/16W
R528	1-216-845-11	METAL CHIP	100K	5%	1/16W
R529	1-216-845-11	METAL CHIP	100K	5%	1/16W
R530	1-216-845-11	METAL CHIP	100K	5%	1/16W
R531	1-216-837-11	METAL CHIP	22K	5%	1/16W (CA620X)
R532	1-216-845-11	METAL CHIP	100K	5%	1/16W
R538	1-216-813-11	METAL CHIP	220	5%	1/16W
R542	1-216-833-11	METAL CHIP	10K	5%	1/16W
R543	1-216-845-11	METAL CHIP	100K	5%	1/16W
R544	1-216-845-11	METAL CHIP	100K	5%	1/16W
R545	1-216-809-11	METAL CHIP	100	5%	1/16W
R546	1-216-845-11	METAL CHIP	100K	5%	1/16W
R547	1-216-295-11	SHORT	0		
R549	1-216-295-11	SHORT	0		
R550	1-216-841-11	METAL CHIP	47K	5%	1/16W
R551	1-216-845-11	METAL CHIP	100K	5%	1/16W
R552	1-216-845-11	METAL CHIP	100K	5%	1/16W
R553	1-216-845-11	METAL CHIP	100K	5%	1/16W
R555	1-208-806-11	RES-CHIP	10K	0.5%	1/10W
R556	1-208-806-11	RES-CHIP	10K	0.5%	1/10W
R557	1-216-821-11	METAL CHIP	1K	5%	1/16W
R558	1-216-813-11	METAL CHIP	220	5%	1/16W
R560	1-216-841-11	METAL CHIP	47K	5%	1/16W (CA620X)
R561	1-216-833-11	METAL CHIP	10K	5%	1/16W
R562	1-208-806-11	RES-CHIP	10K	0.5%	1/10W
R563	1-216-809-11	METAL CHIP	100	5%	1/16W
R564	1-216-809-11	METAL CHIP	100	5%	1/16W
R568	1-216-295-11	SHORT	0		
R570	1-216-845-11	METAL CHIP	100K	5%	1/16W
R571	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R572	1-216-841-11	METAL CHIP	47K	5%	1/16W
R573	1-249-425-11	CARBON	4.7K	5%	1/4W
R576	1-216-849-11	METAL CHIP	220K	5%	1/16W
R577	1-216-841-11	METAL CHIP	47K	5%	1/16W
R580	1-216-809-11	METAL CHIP	100	5%	1/16W
R581	1-216-821-11	METAL CHIP	1K	5%	1/16W
R582	1-216-835-11	METAL CHIP	15K	5%	1/16W
R583	1-216-809-11	METAL CHIP	100	5%	1/16W
R584	1-216-295-11	SHORT	0		
R594	1-216-821-11	METAL CHIP	1K	5%	1/16W
R596	1-216-809-11	METAL CHIP	100	5%	1/16W
R601	1-249-400-11	CARBON	39	5%	1/4W
R602	1-249-400-11	CARBON	39	5%	1/4W
R603	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R604	1-216-833-11	METAL CHIP	10K	5%	1/16W
R606	1-249-400-11	CARBON	39	5%	1/4W
R607	1-249-400-11	CARBON	39	5%	1/4W
R625	1-216-805-11	METAL CHIP	47	5%	1/16W
R631	1-249-417-11	CARBON	1K	5%	1/4W
R632	1-249-417-11	CARBON	1K	5%	1/4W
R701	1-216-821-11	METAL CHIP	1K	5%	1/16W
R702	1-216-821-11	METAL CHIP	1K	5%	1/16W
R703	1-216-821-11	METAL CHIP	1K	5%	1/16W
R704	1-216-833-11	METAL CHIP	10K	5%	1/16W
R705	1-216-833-11	METAL CHIP	10K	5%	1/16W
R706	1-216-821-11	METAL CHIP	1K	5%	1/16W
R711	1-216-001-00	METAL CHIP	10	5%	1/10W
R716	1-216-821-11	METAL CHIP	1K	5%	1/16W
R717	1-216-821-11	METAL CHIP	1K	5%	1/16W
R718	1-216-821-11	METAL CHIP	1K	5%	1/16W
R719	1-216-821-11	METAL CHIP	1K	5%	1/16W
R720	1-216-809-11	METAL CHIP	100	5%	1/16W
R751	1-216-821-11	METAL CHIP	1K	5%	1/16W
R753	1-216-833-11	METAL CHIP	10K	5%	1/16W
R755	1-216-841-11	METAL CHIP	47K	5%	1/16W
R756	1-216-825-11	METAL CHIP	2.2K	5%	1/16W

< SWITCH >

S501	1-571-850-61	SWITCH, SLIDE (FREQUENCY SELECT) (CA620X)
S551	1-692-431-21	SWITCH, TACTILE (RESET)
S552	1-771-540-11	SWITCH, PUSH (1 KEY) (NOSE DETECT)

< THERMISTOR >

TH501	1-803-350-21	THERMISTOR, POSITIVE

< TUNER UNIT >

TU1	A-3282-061-A	TUNER UNIT (TUX-020) (CA600X)
TU1	A-3220-812-A	TUNER UNIT (TUX-020) (CA620X)

< VIBRATOR >

X501	1-781-294-21	VIBRATOR, CRYSTAL (18.432MHz)
X502	1-567-098-41	VIBRATOR, CRYSTAL (32.768kHz)

****

*	1-676-603-21	SUB BOARD

****

	1-792-195-11	CABLE, FLEXIBLE FLAT (14 CORE)

< CONNECTOR >

CNP801	1-794-064-12	SOCKET, CONNECTOR 14P

< LED >

LED801	8-719-061-16	LED CL-190SR-CD-T (TAPE DECK ILLUMINATION)

< SWITCH >

LSW801	1-771-883-11	SWITCH, TACTILE (WITH LED) (⏏)

****

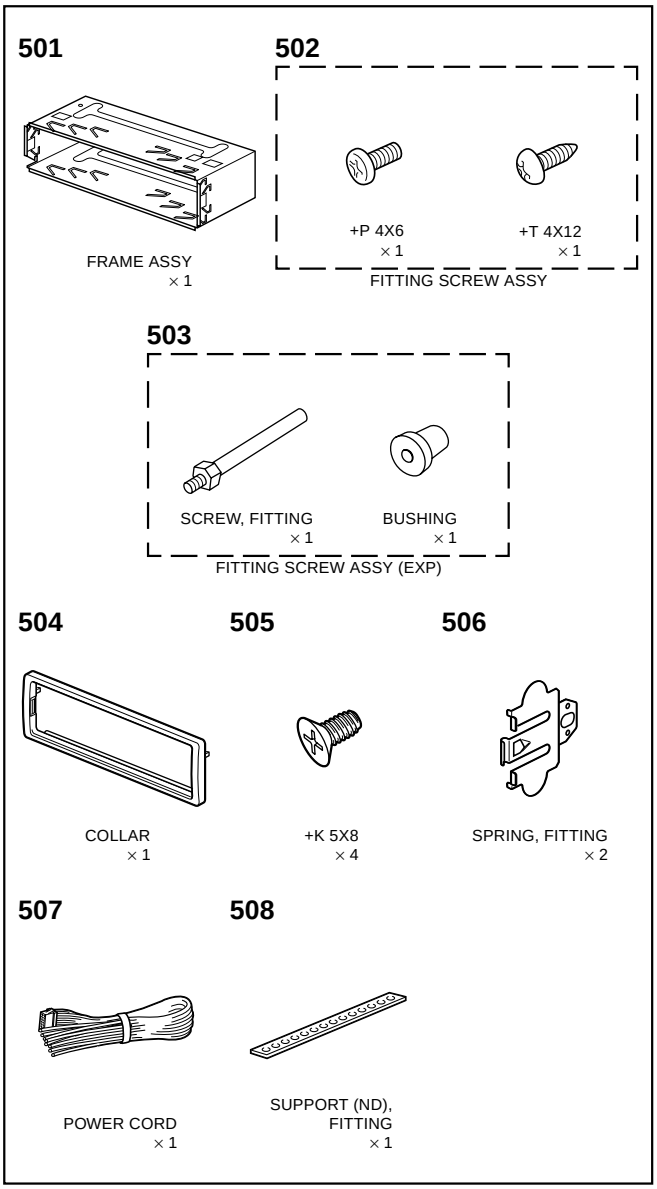
MISCELLANEOUS

****

3	1-792-195-11	CABLE, FLEXIBLE FLAT (14 CORE)
14	1-776-206-31	CORD (WITH CONNECTOR) (POWER)
63	1-694-787-11	CONDUCTIVE BOARD, CONNECTION
F781	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) (10A)
HP901	1-500-157-21	HEAD, MAGNETIC (PLAYBACK)
LCD500	1-804-294-21	DISPLAY PANEL, LIQUID CRYSTAL
M901	A-3291-665-A	MOTOR ASSY, MAIN (CAPSTAN/REEL)

****

Ref. No.	Part No.	Description	Remark
		**********	
		HARDWARE LIST	
		**********	
#1	7-685-793-09	SCREW +PTT 2.6X8 (S)	
#2	7-621-772-20	SCREW +B 2X5	
#3	7-685-792-09	SCREW +PTT 2.6X6 (S)	
#4	7-627-553-28	SCREW, PRECISION +P 2X2.5	
#5	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
#6	7-624-104-04	STOP RING 2.0, TYPE -E	
#7	7-627-553-17	PRECISION SCREW +P 2X2 TYPE 3	
#8	7-685-106-19	SCREW +P 2X10 TYPE2 NON-SLIT	
#9	7-685-795-09	SCREW +PTT 2.6X12 (S)	
#10	7-685-791-09	SCREW +PTT 2.6X5 (S)	
**********			
		ACCESSORIES & PACKING MATERIALS	
		**********	
	1-476-526-11	REMOTE COMMANDER (RM-X114) (CA620X)	
	3-227-098-11	MANUAL, INSTRUCTION (ENGLISH) (CA600X)	
	3-227-098-21	MANUAL, INSTRUCTION (FRENCH) (CA600X)	
	3-227-098-31	MANUAL, INSTRUCTION (ENGLISH, SPANISH, TRADITIONAL CHINESE) (CA620X)	
	3-227-099-11	MANUAL, INSTRUCTION, INSTALL (ENGLISH, FRENCH) (CA600X)	
	3-227-099-21	MANUAL, INSTRUCTION, INSTALL (ENGLISH, SPANISH, TRADITIONAL CHINESE) (CA620X)	
	3-230-047-01	HOLDER, BATTERY (for RM-X114) (CA620X)	
	X-3378-390-2	CASE ASSY (for FRONT PANEL)	
**********			
		PARTS FOR INSTALLATION AND CONNECTIONS	
		**********	
501	X-3373-602-1	FRAME ASSY	
502	X-3368-725-1	SCREW ASSY, FITTING (CA600X)	
503	X-3366-405-1	SCREW ASSY (EXP), FITTING (CA620X)	
504	3-040-979-01	COLLAR	
505	3-934-325-01	SCREW, +K (5X8) TAPPING	
506	3-233-644-01	SPRING, FITTING	
507	1-776-206-31	CORD (WITH CONNECTOR) (POWER)	
508	3-924-961-01	SUPPORT (ND), FITTING (CA600X)	



MEMO

REVISION HISTORY

Clicking the version allows you to jump to the revised page.
Also, clicking the version at the upper right on the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision
1.1	2001.05	Change of Part No. for SPRING, FITTING (ECN-CSA04727)
1.0	2001.02	New